



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We make Indiana a cleaner, healthier place to live.

Frank O'Bannon

Governor

Lori F. Kaplan

Commissioner

100 North Senate Avenue

P. O. Box 6015

Indianapolis, Indiana 46206-6015

(317) 232-8603

(800) 451-6027

www.IN.gov/idem

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) RENEWAL OFFICE OF AIR QUALITY

Rogers Group, Incorporated - Portable Asphalt (Portable Source)

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-8 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: F 027-14791-05023	
Issued by: Original signed by Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: October 11, 2002 Expiration Date: October 11, 2007

TABLE OF CONTENTS

SECTION A	SOURCE SUMMARY	5
A.1	General Information [326 IAC 2-8-3(b)]	
A.2	Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]	
A.3	Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-8-3(c)(3)(I)]	
A.4	FESOP Applicability [326 IAC 2-8-2]	
A.5	Prior Permits Superseded [326 IAC 2-1.1-9.5]	
SECTION B	GENERAL CONDITIONS	7
B.1	Permit No Defense [IC 13]	
B.2	Definitions [326 IAC 2-8-1]	
B.3	Permit Term [326 IAC 2-8-4(2)]	
B.4	Enforceability [326 IAC 2-8-6]	
B.5	Termination of Right to Operate [326 IAC 2-8-9] [326 IAC 2-8-3(h)]	
B.6	Severability [326 IAC 2-8-4(4)]	
B.7	Property Rights or Exclusive Privilege [326 IAC 2-8-4(5)(D)]	
B.8	Duty to Supplement and Provide Information [326 IAC 2-8-3(f)] [326 IAC 2-8-4(5)(E)] [326 IAC 2-8-5 (a)(4)]	
B.9	Compliance Order Issuance [326 IAC 2-8-5(b)]	
B.10	Compliance with Permit Conditions [326 IAC 2-8-4(5)(A)] [326 IAC 2-8-4(5)(B)]	
B.11	Certification [326 IAC 2-8-3(d)] [326 IAC 2-8-4(3)(C)(i)] [326 IAC 2-8-5(1)]	
B.12	Annual Compliance Certification [326 IAC 2-8-5(a)(1)]	
B.13	Preventive Maintenance Plan [326 IAC 1-6-3] [326 IAC 2-8-4(9)] [326 IAC 2-8-5(a)(1)]	
B.14	Emergency Provisions [326 IAC 2-8-12]	
B.15	Deviations from Permit Requirements and Conditions [326 IAC 2-8-4(3)(C)(ii)]	
B.16	Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-8-4(5)(C)] [326 IAC 2-8-7(a)] [326 IAC 2-8-8]	
B.17	Permit Renewal [326 IAC 2-8-3(h)]	
B.18	Permit Amendment or Revision [326 IAC 2-8-10] [326 IAC 2-8-11.1]	
B.19	Operational Flexibility [326 IAC 2-8-15]	
B.20	Permit Revision Requirement [326 IAC 2-8-11.1]	
B.21	Inspection and Entry [326 IAC 2-8-5(a)(2)] [IC 13-14-2-2]	
B.22	Transfer of Ownership or Operational Control [326 IAC 2-8-10]	
B.23	Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-8-4(6)] [326 IAC 2-8-16]	
SECTION C	SOURCE OPERATION CONDITIONS	16
	Emission Limitations and Standards [326 IAC 2-8-4(1)]	
C.1	Overall Source Limit [326 IAC 2-8] [326 IAC 2-2]	
C.2	Opacity [326 IAC 5-1]	
C.3	Open Burning [326 IAC 4-1] [IC 13-17-9]	
C.4	Incineration [326 IAC 4-2] [326 IAC 9-1-2(3)]	
C.5	Fugitive Dust Emissions [326 IAC 6-4]	
C.6	Fugitive Particulate Matter Emission Limitations [326 IAC 6-5]	
C.7	Operation of Equipment [326 IAC 2-8-5(a)(4)]	
C.8	Stack Height [326 IAC 1-7]	
C.9	Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61 Subpart M]	
	Testing Requirements [326 IAC 2-8-4(3)]	
C.10	Performance Testing [326 IAC 3-6]	

Compliance Requirements [326 IAC 2-1.1-11]

- C.11 Compliance Requirements [326 IAC 2-1.1-11]

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

- C.12 Compliance Monitoring [326 IAC 2-8-4(3)] [326 IAC 2-8-5(a)(1)]
C.13 Monitoring Methods [326 IAC 3] [40 CFR 60][40 CFR 63]
C.14 Pressure Gauge and Other Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-8-4(3)]
[326 IAC 2-8-5(1)]

Corrective Actions and Response Steps [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

- C.15 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]
C.16 Risk Management Plan [326 IAC 2-8-4] [40 CFR 68.215]
C.17 Compliance Response Plan - Preparation, Implementation, Records, and Reports
[326 IAC 2-8-4, 5]
C.18 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4, 5]

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]

- C.19 Emission Statement [326 IAC 2-6] [326 IAC 2-8-4(3)]
C.20 General Record Keeping Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-5]
C.21 General Reporting Requirements [326 IAC 2-8-4(3)(C)] [326 IAC 2-1.1-11]

Portable Source Requirement

- C.22 Relocation of Portable Sources [326 IAC 2-14-4]

Stratospheric Ozone Protection

- C.23 Compliance with 40 CFR 82 and 326 IAC 22-1

SECTION D.1 FACILITY OPERATION CONDITIONS: portable drum hot mix asphalt plant 25

Emission Limitations and Standards [326 IAC 2-8-4(1)]

- D.1.1 Portable Source
D.1.2 General Provisions Relating to NSPS [326 IAC 12-1] [40 CFR 60, Subpart A]
D.1.3 Volatile Organic Compounds (VOC) [326 IAC 2-2] [40 CFR 52.21] [326 IAC 2-8-4] [326 IAC 8-5-2]
D.1.4 Sulfur Dioxide (SO₂) [326 IAC 2-8-4] [326 IAC 7-1.1-1] [326 IAC 7-2-1] [326 IAC 2-2] [40 CFR 52.21] [326 IAC 2-3]
D.1.5 Particulate Matter (PM₁₀) [326 IAC 2-8-4] [326 IAC 2-2] [40 CFR 52.21][326 IAC 2-3]
D.1.6 Particulate Matter (PM) [326 IAC 2-2] [40 CFR 60.92] [326 IAC 12-1] [40 CFR 52.21] [326 IAC 2-3]
D.1.7 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

Compliance Determination Requirements

- D.1.8 Testing Requirements [326 IAC 2-8-5(a)(1), (4)] [326 IAC 2-1.1-11] [40 CFR 60.93] [326 IAC 12]
D.1.9 Sulfur Dioxide Emissions and Sulfur Content
D.1.10 Particulate Matter (PM and PM₁₀)
D.1.11 Used Oil Requirements [329 IAC 13]

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

- D.1.12 Visible Emissions Notations
D.1.13 Parametric Monitoring
D.1.14 Baghouse Inspections

D.1.15 Broken or Failed Bag Detection

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.1.16 Record Keeping Requirements

D.1.17 Record Keeping Requirements [40 CFR 60.116b][326 IAC 12-1]

D.1.18 Reporting Requirements

SECTION D.2 FACILITY OPERATION CONDITIONS: Insignificant Activities 31

There are no conditions applicable to these insignificant activities.

SECTION D.3 FACILITY OPERATION CONDITIONS: Alternate Operating Scenario (co-location of the portable plant with the stationary plant in Washington, Indiana) 32

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.3.1 Portable Source

D.3.2 General Provisions Relating to NSPS [326 IAC 12-1] [40 CFR 60, Subpart A]

D.3.3 Volatile Organic Compounds (VOC) [326 IAC 2-2] [40 CFR 52.21] [326 IAC 2-8-4] [326 IAC 8-5-2]

D.3.4 Sulfur Dioxide (SO₂) [326 IAC 2-8-4] [326 IAC 7-1.1-1] [326 IAC 7-2-1] [326 IAC 2-2] [40 CFR 52.21]

D.3.5 Nitrogen Oxides (NO_x) [326 IAC 2-8-4]

D.3.6 Particulate Matter (PM₁₀) [326 IAC 2-8-4] [326 IAC 2-2] [40 CFR 52.21]

D.3.7 Particulate Matter (PM) [326 IAC 2-2] [40 CFR 60.92] [326 IAC 12-1] [40 CFR 52.21] [326 IAC 6-3-2]

D.3.8 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

Compliance Determination Requirements

D.3.9 Testing Requirements [326 IAC 2-8-5(a)(1), (4)] [326 IAC 2-1.1-11] [40 CFR 60.93] [326 IAC 12]

D.3.10 Sulfur Dioxide Emissions and Sulfur Content

D.3.11 Particulate Matter (PM and PM₁₀)

D.3.12 Used Oil Requirements [329 IAC 13]

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

D.3.13 Visible Emissions Notations

D.3.14 Parametric Monitoring

D.3.15 Scrubber Inspections

D.3.16 Scrubber Failure Detection

D.3.17 Cyclone Inspections

D.3.18 Cyclone Failure Detection

D.3.19 Baghouse Inspections

D.3.20 Broken or Failed Bag Detection

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.3.21 Record Keeping Requirements

D.3.22 Record Keeping Requirements [40 CFR 60.116b][326 IAC 12-1]

D.3.23 Reporting Requirements

Certification	41
Emergency Occurrence Report	42
Quarterly Reports	44

Quarterly Deviation and Compliance Monitoring Report	48
---	-----------

SECTION A

SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in Conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-8-3(b)]

The Permittee owns and operates a portable drum hot mix asphalt plant source.

Authorized Individual:	John P. Torres
Source Address:	Portable
Mailing Address:	P.O. Box 25250, Nashville, Tennessee 37202-5250
General Source Phone Number:	615-242-0585
SIC Code:	2951
County Location:	Portable (currently in Daviess County)
Source Location Status:	Based on Daviess County Attainment for all criteria pollutants Attainment for all other criteria pollutants
Source Status:	Federally Enforceable State Operating Permit (FESOP) Minor Source, under PSD and Emission Offset Rules; Minor Source, Section 112 of the Clean Air Act

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

This portable source consists of the following emission units and pollution control devices:

- (a) One (1) 116 million British thermal units per hour aggregate dryer (C1), exhausting through the baghouse (CE1) and stack SV1, fired by No. 2 or No. 4 distillate fuel oil, re-refined (waste) oil or natural gas.
- (b) One (1) drum mixer (AP1), exhausting through the baghouse (CE1) and stack SV1, capacity: 350 tons of hot mix asphalt per hour.
- (c) One (1) liquid asphalt storage tank (MS2), heated by a 1.2 million British thermal units per hour oil heater (C2), capacity: 30,000 gallons.
- (d) One (1) No. 2 distillate fuel oil storage tank (MS4), capacity: 10,000 gallons.

A.3 Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-8-3(c)(3)(I)]

This portable source also includes the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (a) Fuel oil-fired combustion sources with heat input equal to or less than two million (2,000,000) British thermal units per hour and firing fuel containing less than five-tenths (0.5) percent sulfur by weight (Oil heater C2).
- (b) Storage tanks with capacity less than or equal to 1,000 gallons and annual throughputs less than 12,000 gallons, including one (1) No. 2 distillate fuel oil storage tank with a capacity of 550 gallons.

- (c) Vessels storing lubricating oil, hydraulic oils, machining oils, and machining fluids.
- (d) Closed loop heating and cooling systems.
- (e) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.
- (f) Paved and unpaved roads and parking lots with public access.
- (g) Asbestos abatement projects regulated by 326 IAC 14-10.

A.4 FESOP Applicability [326 IAC 2-8-2]

This portable source, otherwise required to have a Part 70 permit as described in 326 IAC 2-7-2(a), has applied to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) to renew a Federally Enforceable State Operating Permit (FESOP).

A.5 Prior Permits Superseded [326 IAC 2-1.1-9.5]

- (a) All terms and conditions of previous permits issued pursuant to permitting programs approved into the state implementation plan have been either
 - (1) incorporated as originally stated,
 - (2) revised, or
 - (3) deletedby this permit.
- (b) All previous registrations and permits are superseded by this permit.

GENERAL CONDITIONS

Indiana statutes from IC 13 and rules from 326 IAC, quoted in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a FESOP under 326 IAC 2-8.

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2, and 326 IAC 2-7) shall prevail.

This permit is issued for a fixed term of five (5) years from the original date, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date.

Unless otherwise stated, all terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM, the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-8-3(h) and 326 IAC 2-8-9.

The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

This permit does not convey any property rights of any sort, or any exclusive privilege.

(a) The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to:

The submittal by the Permittee does require the certification by the “authorized individual” as defined by 326 IAC 2-1.1-1(1).

- (b) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ, may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The

submittal by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1). Upon request, the Permittee shall also furnish to IDEM, OAQ, copies of records required to be kept by this permit or, for information claimed to be confidential, the Permittee may furnish such records directly to the U. S. EPA along with a claim of confidentiality.[326 IAC 2-8-4(5)(E)]

- (c) The Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

B.9 Compliance Order Issuance [326 IAC 2-8-5(b)]

IDEM, OAQ may issue a compliance order to this Permittee upon discovery that this permit is in nonconformance with an applicable requirement. The order may require immediate compliance or contain a schedule for expeditious compliance with the applicable requirement.

B.10 Compliance with Permit Conditions [326 IAC 2-8-4(5)(A)] [326 IAC 2-8-4(5)(B)]

- (a) The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit is grounds for:
 - (1) Enforcement action;
 - (2) Permit termination, revocation and reissuance, or modification; and
 - (3) Denial of a permit renewal application.
- (b) It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
- (c) An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in Section B, Emergency Provisions.

B.11 Certification [326 IAC 2-8-3(d)] [326 IAC 2-8-4(3)(C)(i)] [326 IAC 2-8-5(1)]

- (a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by an authorized individual of truth, accuracy, and completeness. This certification, shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification.
- (c) An authorized individual is defined at 326 IAC 2-1.1-1(1).

B.12 Annual Compliance Certification [326 IAC 2-8-5(a)(1)]

- (a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. All certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in letter form no later than July 1 of each year to:

Rogers Group, Incorporated - Portable Asphalt
Portable
Permit Reviewer: CAP/MES

Page 10 of 63
OP No. F 027-14791-05023

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

- (b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (c) The annual compliance certification report shall include the following:
 - (1) The appropriate identification of each term or condition of this permit that is the basis of the certification;
 - (2) The compliance status;
 - (3) Whether compliance was continuous or intermittent;
 - (4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-8-4(3); and
 - (5) Such other facts as specified in Sections D of this permit, IDEM, OAQ, may require to determine the compliance status of the source.

The notification which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

B.13 Preventive Maintenance Plan [326 IAC 1-6-3] [326 IAC 2-8-4(9)] [326 IAC 2-8-5(a)(1)]

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall maintain and implement Preventive Maintenance Plans (PMPs), including the following information on each facility:
 - (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
 - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
 - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.
- (b) The Permittee shall implement the PMPs as necessary to ensure that failure to implement a PMP does not cause or contribute to a violation of any limitation on emissions or potential to emit.
- (c) A copy of the PMPs shall be submitted to IDEM, OAQ, upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ, may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or contributes to any violation. The PMP does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (d) Records of preventive maintenance shall be retained for a period of at least five (5) years. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the

Permittee shall furnish the records to the Commissioner within a reasonable time.

B.14 Emergency Provisions [326 IAC 2-8-12]

- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation, except as provided in 326 IAC 2-8-12.
- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describes the following:
- (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
 - (2) The permitted facility was at the time being properly operated;
 - (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
 - (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ/Southwest Regional Office, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone No.: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section)
or,

Telephone No.: 317-233-5674 (ask for Compliance Section)
Facsimile No.: 317-233-5967

Southwest Regional Office: 812-436-2570, facsimile 812-436-2572

Failure to notify IDEM, OAQ / Southwest Regional Office, by telephone or facsimile within four (4) daytime business hours after the beginning of the emergency, or after the emergency is discovered or reasonably should have been discovered, shall constitute a violation of 326 IAC 2-8 and any other applicable rules. [326 IAC 2-8-12(f)]

- (5) For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-8-4(3)(C)(ii) and must contain the following:

- (A) A description of the emergency;
- (B) Any steps taken to mitigate the emissions; and
- (C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
- (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
- (e) IDEM, OAQ, may require that the Preventive Maintenance Plans required under 326 IAC 2-8-3(c)(6) be revised in response to an emergency.
- (f) Failure to notify IDEM, OAQ, by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-8 and any other applicable rules.
- (g) Operations may continue during an emergency only if the following conditions are met:
 - (1) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.
 - (2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:
 - (A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and
 - (B) Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw material of substantial economic value.

Any operations shall continue no longer than the minimum time required to prevent the situations identified in (g)(2)(B) of this condition.

B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-8-4(3)(C)(ii)]

- (a) Deviations from any permit requirements (for emergencies see Section B - Emergency Provision), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015

Indianapolis, Indiana 46206-6015

using the attached Quarterly Deviation and Compliance Monitoring Report, or its equivalent. A deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report.

The Quarterly Deviation and Compliance Monitoring Report does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.
- (c) Emergencies shall be included in the Quarterly Deviation and Compliance Monitoring Report.

B.16 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-8-4(5)(C)] [326 IAC 2-8-7(a)] [326 IAC 2-8-8]

- (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a FESOP modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-8-4(5)(C)] The notification by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ determines any of the following:
 - (1) That this permit contains a material mistake.
 - (2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.
 - (3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-8-8(a)]
- (c) Proceedings by IDEM, OAQ, to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-8-8(b)]
- (d) The reopening and revision of this permit, under 326 IAC 2-8-8(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ, at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ, may provide a shorter time period in the case of an emergency. [326 IAC 2-8-8(c)]

B.17 Permit Renewal [326 IAC 2-8-3(h)]

- (a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ, and shall include the information specified in 326 IAC 2-8-3. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, IN 46206-6015

(b) Timely Submittal of Permit Renewal [326 IAC 2-8-3]

(1) A timely renewal application is one that is:

- (A) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
- (B) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

(2) If IDEM, OAQ, upon receiving a timely and complete permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect until the renewal permit has been issued or denied.

(c) Right to Operate After Application for Renewal [326 IAC 2-8-9]

If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-8 until IDEM, OAQ, takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ, any additional information identified as needed to process the application.

B.18 Permit Amendment or Revision [326 IAC 2-8-10] [326 IAC 2-8-11.1]

(a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-8-10 or 326 IAC 2-8-11.1 whenever the Permittee seeks to amend or modify this permit.

(b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

Any such application should be certified by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(c) The Permittee may implement the administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

B.19 Operational Flexibility [326 IAC 2-8-15]

(a) The Permittee may make any change or changes at this source that are described in 326 IAC

2-8-15(b) through (d), without prior permit revision, if each of the following conditions is met:

- (1) The changes are not modifications under any provision of Title I of the Clean Air Act;
- (2) Any approval required by 326 IAC 2-8-11.1 has been obtained;
- (3) The changes do not result in emissions which exceed the emissions allowable under this permit (whether expressed herein as a rate of emissions or in terms of total emissions);
- (4) The Permittee notifies the:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit; and

- (5) The Permittee maintains records on-site which document, on a rolling five (5) year basis, all such changes and emissions trading that are subject to 326 IAC 2-8-15(b) through (d) and makes such records available, upon reasonable request, to public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ, in the notices specified in 326 IAC 2-8-15(b), (c)(1), and (d).

- (b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(36)) without a permit revision, subject to the constraint of 326 IAC 2-8-15(a) and the following additional conditions:

- (1) A brief description of the change within the source;
- (2) The date on which the change will occur;
- (3) Any change in emissions; and
- (4) Any permit term or condition that is no longer applicable as a result of the change.

The notification which shall be submitted by the Permittee does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

- (c) Emission Trades [326 IAC 2-8-15(c)]

The Permittee may trade increases and decreases in emissions in the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-8-15(c).

- (d) Alternative Operating Scenarios [326 IAC 2-8-15(d)]
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-8-4(7). No prior notification of IDEM, OAQ or U.S. EPA is required.

B.20 Permit Revision Requirement [326 IAC 2-8-11.1]

A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2 and 326 IAC 2-8-11.1.

B.21 Inspection and Entry [326 IAC 2-8-5(a)(2)] [IC 13-14-2-2]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, U.S. EPA, or an authorized representative to perform the following:

- (a) Enter upon the Permittee's premises where a FESOP source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- (c) Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- (d) Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

B.22 Transfer of Ownership or Operational Control [326 IAC 2-8-10]

- (a) The Permittee must comply with the requirements of 326 IAC 2-8-10 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.
- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

The application which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-11(b)(3)]

B.23 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-8-4(6)] [326 IAC 2-8-16]

- (a) The Permittee shall pay annual fees to IDEM, OAQ, within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.
- (b) Failure to pay may result in administrative enforcement action, or revocation of this permit.
- (c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-0425 (ask for OAQ, Technical Support and Modeling Section), to determine the appropriate permit

fee.

SECTION C

SOURCE OPERATION CONDITIONS

Entire Source

Emissions Limitations and Standards [326 IAC 2-8-4(1)]

C.1 Overall Source Limit [326 IAC 2-8] [326 IAC 2-2] [326 IAC 2-3] [40 CFR 52.21]

The purpose of this permit is to limit this source's potential to emit to less than major source levels for the purpose of Section 502(a) of the Clean Air Act.

(a) Pursuant to 326 IAC 2-8:

- (1) The potential to emit any regulated pollutant, except particulate matter (PM), from the entire source shall be limited to less than one-hundred (100) tons per twelve (12) consecutive month period. This limitation shall also make the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)), 40 CFR 52.21, and 326 IAC 2-3 (Emission Offset) not applicable;
- (2) The potential to emit any individual hazardous air pollutant (HAP) from the entire source shall be limited to less than ten (10) tons per twelve (12) consecutive month period; and
- (3) The potential to emit any combination of HAPs from the entire source shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period.

(b) Pursuant to 326 IAC 2-3 (Emission Offset), potential to emit particulate matter (PM) from the entire source shall be limited to less than one-hundred (100) tons per twelve (12) consecutive month period. This limitation shall also make the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) and 40 CFR 52.21 not applicable.

(c) This condition shall include all emission points at this source including those that are insignificant as defined in 326 IAC 2-7-1(21). The source shall be allowed to add insignificant activities not already listed in this permit, provided that the source's potential to emit does not exceed the above specified limits.

(d) Section D of this permit contains independently enforceable provisions to satisfy this requirement.

C.2 Opacity [326 IAC 5-1]

(a) Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (1) Opacity shall not exceed an average of thirty percent (30%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (2) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

- (b) This portable source shall not re-locate to Lake County without prior IDEM, OAQ, approval.

C.3 Open Burning [326 IAC 4-1] [IC 13-17-9]

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1.

C.4 Incineration [326 IAC 4-2] [326 IAC 9-1-2(3)]

The Permittee shall not operate an incinerator or incinerate any waste or refuse except as provided in 326 IAC 4-2 and in 326 IAC 9-1-2.

C.5 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions).

C.6 Fugitive Particulate Matter Emission Limitations [326 IAC 6-5]

Pursuant to 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations), fugitive particulate matter emissions shall be controlled according to the plan submitted on December 13, 1996. The plan consists of:

- (a) Cleaning paved roads and parking lots by sweeping on an as needed basis (monthly minimum). Power brooming paved roads and parking lots while wet.
- (b) Paving unpaved roads and parking lots with asphalt. Treating with emulsified asphalt as needed. Treating with water as needed. Double chipping and sealing the road surface and maintain on an as needed basis.
- (c) Maintaining minimum size and number of stock piles of aggregate. Treating around the stockpile with emulsified asphalt on an as needed basis. Treating around the stockpile with water as needed. Treating the stockpiles with water as needed.
- (d) Applying water at the feed and the intermediate points of the conveyers as needed.
- (e) Minimizing the vehicular distance between transfer points of aggregates. Enclosing the transfer points. Applying water to the transfer points on an as-needed basis.
- (f) Tarping aggregate hauling vehicles. Maintaining vehicle bodies to prevent leakage. Spraying aggregates with water during transport. Maintaining a 10 mile per hour speed limit in the yard.
- (g) Reducing free fall distance during loading and unloading. Reducing the rate of discharge of the aggregate. Spraying the aggregate with water on an as needed basis.

C.7 Operation of Equipment [326 IAC 2-8-5(a)(4)]

Except as otherwise provided by statute, rule or in this permit, all air pollution control equipment listed in this permit and used to comply with an applicable requirement shall be operated at all times that the emission units vented to the control equipment are in operation.

C.8 Stack Height [326 IAC 1-7]

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted.

C.9 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

-
- (a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.
 - (b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:
 - (1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or
 - (2) If there is a change in the following:
 - (A) Asbestos removal or demolition start date;
 - (B) Removal or demolition contractor; or
 - (C) Waste disposal site.
 - (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).
 - (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management
Asbestos Section, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (e) **Procedures for Asbestos Emission Control**
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-4 emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.
- (f) **Indiana Accredited Asbestos Inspector**
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement that the inspector be accredited is federally enforceable.

Testing Requirements [326 IAC 2-8-4(3)]

C.10 Performance Testing [326 IAC 3-6]

- (a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ, not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ, if the source submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

C.11 Compliance Requirements [326 IAC 2-1.1-11]

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

C.12 Compliance Monitoring [326 IAC 2-8-4(3)] [326 IAC 2-8-5(a)(1)]

Unless otherwise specified in this permit, all monitoring and record keeping requirements not already legally required shall be implemented upon issuance of this permit. If required by Section D, the Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment.

Unless otherwise specified in the approval for the new emissions unit, compliance monitoring for new emission units or emission units added through a permit revision shall be implemented when operation begins.

C.13 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]

Any monitoring or testing performed required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, 40 CFR 60 Appendix B, 40 CFR 63 or other approved methods as specified in this permit.

C.14 Pressure Gauge and Other Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-8-4(3)] [326 IAC 2-8-5(1)]

- (a) Whenever a condition in this permit requires the measurement of pressure drop across any part of the unit or its control device, the gauge employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent ($\pm 2\%$) of full scale reading.
- (b) Whenever a condition in this permit requires the measurement of a temperature or flow rate, the instrument employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent ($\pm 2\%$) of full scale reading.
- (c) The Permittee may request the IDEM, OAQ approve the use of a pressure gauge or other instrument that does not meet the above specifications provided the Permittee can demonstrate an alternative pressure gauge or other instrument specification will adequately ensure compliance with permit conditions requiring the measurement of pressure drop or other parameters.

Corrective Actions and Response Steps [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

C.15 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]

Pursuant to 326 IAC 1-5-2 (Emergency Reduction Plans; Submission):

- (a) The Permittee shall prepare written emergency reduction plans (ERPs) consistent with safe operating procedures.
- (b) These ERPs shall be submitted for approval to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

within ninety (90) days from the date of issuance of this permit.

The ERP does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) If the ERP is disapproved by IDEM, OAQ, the Permittee shall have an additional thirty (30) days to resolve the differences and submit an approvable ERP.
- (d) These ERPs shall state those actions that will be taken, when each episode level is declared, to reduce or eliminate emissions of the appropriate air pollutants.
- (e) Said ERPs shall also identify the sources of air pollutants, the approximate amount of reduction of the pollutants, and a brief description of the manner in which the reduction will be achieved.
- (f) Upon direct notification by IDEM, OAQ, that a specific air pollution episode level is in effect, the Permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate episode level. [326 IAC 1-5-3]

C.16 Risk Management Plan [326 IAC 2-8-4] [40 CFR 68.215]

If a regulated substance, subject to 40 CFR 68, is present at a source in more than a threshold quantity, 40 CFR 68 is an applicable requirement and the Permittee shall submit:

- (a) A compliance schedule for meeting the requirements of 40 CFR 68; or
- (b) As a part of the annual compliance certification submitted under 326 IAC 2-7-6(5), a certification statement that the source is in compliance with all the requirements of 40 CFR 68, including the registration and submission of a Risk Management Plan (RMP).

All documents submitted pursuant to this condition shall include the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

C.17 Compliance Response Plan - Preparation, Implementation, Records, and Reports [326 IAC 2-8-4] [326 IAC 2-8-5]

- (a) The Permittee is required to prepare a Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. A CRP shall be submitted to IDEM, OAQ upon request. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee, supplemented from time to time by the Permittee, maintained on site, and comprised of:
 - (1) Reasonable response steps that may be implemented in the event that a response step is needed pursuant to the requirements of Section D of this permit; and an expected timeframe for taking reasonable response steps.
 - (2) If, at any time, the Permittee takes reasonable response steps that are not set forth in the Permittee's current Compliance Response Plan and the Permittee documents such response in accordance with subsection (e) below, the Permittee shall amend its Compliance Response Plan to include such response steps taken.
- (b) For each compliance monitoring condition of this permit, reasonable response steps shall be taken when indicated by the provisions of that compliance monitoring condition as follows:
 - (1) Reasonable response steps shall be taken as set forth in the Permittee's current Compliance Response Plan; or
 - (2) If none of the reasonable response steps listed in the Compliance Response Plan is applicable or responsive to the excursion, the Permittee shall devise and implement additional response steps as expeditiously as practical. Taking such additional response steps shall not be considered a deviation from this permit so long as the Permittee documents such response steps in accordance with this condition.
 - (3) If the Permittee determines that additional response steps would necessitate that the emissions unit or control device be shut down, the IDEM, OAQ shall be promptly notified of the expected date of the shut down, the status of the applicable compliance monitoring parameter with respect to normal, and the results of the actions taken up to the time of notification.
 - (4) Failure to take reasonable response steps shall constitute a violation of the permit.
- (c) The Permittee is not required to take any further response steps for any of the following reasons:

- (1) A false reading occurs due to the malfunction of the monitoring equipment and prompt action was taken to correct the monitoring equipment.
 - (2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for an administrative amendment to the permit, and such request has not been denied.
 - (3) An automatic measurement was taken when the process was not operating.
 - (4) The process has already returned or is returning to operating within "normal" parameters and no response steps are required.
- (d) When implementing reasonable steps in response to a compliance monitoring condition, if the Permittee determines that an exceedance of an emission limitation has occurred, the Permittee shall report such deviations pursuant to Section B-Deviations from Permit Requirements and Conditions.
- (e) The Permittee shall record all instances when response steps are taken. In the event of an emergency, the provisions of 326 IAC 2-7-16 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.
- (f) Except as otherwise provided by a rule or provided specifically in Section D, all monitoring as required in Section D shall be performed when the emission unit is operating, except for time necessary to perform quality assurance and maintenance activities.

C.18 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4] [326 IAC 2-8-5]

- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.
- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.
- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The documents submitted pursuant to this condition do require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]

C.19 Emission Statement [326 IAC 2-6] [326 IAC 2-8-4(3)]

- (a) The Permittee shall submit an emission statement certified pursuant to the requirements of 326 IAC 2-6. This statement must be received in accordance with the compliance schedule specified in 326 IAC 2-6-3 and must comply with the minimum requirements specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8). The statement

must be submitted to:

Indiana Department of Environmental Management
Technical Support and Modeling Section, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

The emission statement does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) The emission statement required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

C.20 General Record Keeping Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-5]

- (a) Records of all required data, reports and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

C.21 General Reporting Requirements [326 IAC 2-8-4(3)(C)] [326 IAC 2-1.1-11]

- (a) The source shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported. This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015
- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (d) Unless otherwise specified in this permit, any quarterly report required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. The reports do require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (e) Reporting periods are based on calendar years.

Portable Source Requirement

C.22 Relocation of Portable Sources [326 IAC 2-14-4]

- (a) This permit is approved for operation in all areas of Indiana except in severe nonattainment areas for ozone (at the time of this permit's issuance these areas were Lake and Porter Counties). This determination is based on the requirements Prevention of Significant Deterioration in 326 IAC 2-2 and 40 CFR 52.21, and Emission Offset requirements in 326 IAC 2-3. A thirty (30) day advance notice of relocation must be given to IDEM, OAQ and a "Relocation Site Approval" letter must be obtained before relocating. The notification by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (b) The Permittee shall also notify the applicable local air pollution control agency when relocating to or from one of the following:
- (1) Madison County - (Anderson Office of Air Management)
 - (2) City of Evansville plus four (4) miles beyond the corporate limits but not outside Vanderburgh County - (Evansville EPA)
 - (3) City of Gary - (Gary Air and Land Pollution Control)
 - (4) City of Hammond - (Hammond Department of Environmental Management)
 - (5) Marion County - (Indianapolis Air Pollution Control Agency)
 - (6) St. Joseph County - (St. Joseph County Health Department)
 - (7) Vigo County - (Vigo County Air Pollution Department)
- (c) A valid operation permit consists of this document and any subsequent "Relocation Site Approval" letter specifying the current location of the portable plant.
- (d) The Permittee shall request a permit revision and obtain IDEM, OAQ, approval prior to co-locating with any Roger's Group, Incorporated source in Indiana, other than the plant described in Section D.3.

Stratospheric Ozone Protection

C.23 Compliance with 40 CFR 82 and 326 IAC 22-1

Pursuant to 40 CFR 82 (Protection of Stratospheric Ozone), Subpart F, except as provided for motor vehicle air conditioners in Subpart B, the Permittee shall comply with the standards for recycling and emissions reduction:

- (a) Persons opening appliances for maintenance, service, repair or disposal must comply with the required practices pursuant to 40 CFR 82.156
- (b) Equipment used during the maintenance, service, repair or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.
- (c) Persons performing maintenance, service, repair or disposal of appliances must be certified

by an approved technician certification program pursuant to 40 CFR 82.161.

SECTION D.1

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]: Portable drum hot mix asphalt plant

- (a) One (1) 116 million British thermal units per hour aggregate dryer (C1), exhausting through the baghouse (CE1) and stack SV1, fired by No. 2 or No. 4 distillate fuel oil, re-refined (waste) oil or natural gas.
- (b) One (1) drum mixer (AP1), exhausting through the baghouse (CE1) and stack SV1, capacity: 350 tons of hot mix asphalt per hour.
- (c) One (1) liquid asphalt storage tank (MS2), heated by a 1.2 million British thermal units per hour oil heater (C2), capacity: 30,000 gallons.
- (d) One (1) No. 2 distillate fuel oil storage tank (MS4), capacity: 10,000 gallons.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.1.1 Portable Source

This portable asphalt plant shall comply with the requirements of this section (D.1) at all times except when co-located with Rogers Group, Inc. of Washington, Indiana. When the portable asphalt plant is co-located with Rogers Group, Inc. of Washington, Indiana, the requirements of Section D.3 shall be applicable and the requirements of Section D.1 shall not be applicable.

D.1.2 General Provisions Relating to NSPS [326 IAC 12-1] [40 CFR 60, Subpart A]

The provisions of 40 CFR 60 Subpart A - General Provisions, which are incorporated as 326 IAC 12-1, apply to the facility described in this section except when otherwise specified in 40 CFR 60 Subpart I and 40 CFR 60 Subpart Kb.

D.1.3 Volatile Organic Compounds (VOC) [326 IAC 2-2] [40 CFR 52.21] [326 IAC 2-8-4] [326 IAC 8-5-2]

- (a) The owner or operator shall not process emulsified or cutback asphalt at the portable plant unless proper approval has been obtained from IDEM, OAQ.
- (b) Pursuant to 326 IAC 8-5-2, the Permittee shall not allow the use of asphalt emulsion containing more than seven percent (7%) oil distillate by volume of emulsion, except as used for the following purposes:
 - (1) penetrating prime coating;
 - (2) stockpile storage mix; and
 - (3) application during the months of November, December, January, February, and March.

D.1.4 Sulfur Dioxide (SO₂) [326 IAC 2-8-4] [326 IAC 7-1.1-1] [326 IAC 7-2-1] [326 IAC 2-2] [40 CFR 52.21] [326 IAC 2-3]

- (a) Pursuant to 326 IAC 2-8-4, the total use of re-refined (waste) oils by the dryer burner shall be limited to no more than 3,700,935 gallons per twelve (12) consecutive month period, with

compliance determined at the end of each month. Each gallon of No. 2 distillate fuel oil used at the dryer burner or hot oil heater shall be considered equal to using 1.33 gallons of re-refined (waste) oils and each gallon of No. 4 distillate fuel oil used shall be considered equal to using 1.40 gallons of re-refined (waste) oils. The sulfur content of the re-refined (waste) oil shall not exceed one half of a percent (0.5%) by weight and the sulfur content of the No. 2 and No. 4 distillate oils shall not exceed one half of a percent (0.5%) by weight, based on a monthly weighted average. This will limit SO₂ emissions from the use of distillate fuel oils or re-refined (waste) oil to 99.0 tons per year and the potential to emit SO₂ from the entire source to less than 100 tons per year. Thus, the requirements of 326 IAC 2-7, Part 70, do not apply. Compliance with this limit shall also ensure that the requirements of 326 IAC 2-2 and 40 CFR 52.21, Prevention of Significant Deterioration (PSD), and 326 IAC 2-3, Emission Offset, are not applicable.

- (b) Pursuant to 326 IAC 7-1.1 (SO₂ Emissions Limitations), the SO₂ emissions from the aggregate dryer shall not exceed five tenths (0.5) pounds per million British thermal unit heat input when operating on No. 2 distillate oil or No. 4 distillate oil. Pursuant to 326 IAC 7-2-1, compliance shall be demonstrated on a thirty (30) day rolling weighted average.
- (c) Pursuant to 326 IAC 7-1.1 (SO₂ Emissions Limitations), the SO₂ emissions from the aggregate dryer shall not exceed one and six-tenths (1.6) pounds per million British thermal unit heat input when operating on re-refined (waste) oil. Pursuant to 326 IAC 7-2-1, compliance shall be demonstrated on a thirty (30) day rolling weighted average.

D.1.5 Particulate Matter (PM₁₀) [326 IAC 2-8-4] [326 IAC 2-2] [40 CFR 52.21][326 IAC 2-3]

Pursuant to 326 IAC 2-8-4, the PM₁₀ emissions from the aggregate dryer/mixer shall not exceed 19.4 pounds per hour, total. This will limit the total potential to emit PM₁₀ from the aggregate dryer/mixer to less than 85.0 tons per year, and the total source potential to emit PM₁₀ to less than 100 tons per year. Therefore, the requirements of 326 IAC 2-7, Part 70, do not apply. Compliance with this limit shall also ensure that the requirements of 326 IAC 2-2 and 40 CFR 52.21, Prevention of Significant Deterioration (PSD), and 326 IAC 2-3, Emission Offset, are not applicable.

D.1.6 Particulate Matter (PM) [326 IAC 2-2] [40 CFR 60.92] [326 IAC 12-1] [40 CFR 52.21] [326 IAC 2-3]

- (a) The potential to emit PM from the aggregate dryer/mixer shall not exceed 6.55 pounds per hour, total. This will limit the potential to emit PM from the aggregate dryer/mixer to less than 28.7 tons per year, and the potential to emit PM from the entire source to less than 100 tons per year. Thus, the requirements of 326 IAC 2-2 and 40 CFR 52.21, PSD, and 326 IAC 2-3, Emission Offset, are not applicable.
- (b) Pursuant to 40 CFR 60.92 and 326 IAC 12-1, the opacity of emissions from the aggregate dryer/ mixer stack (SV1) shall be less than twenty percent (20%).
- (c) Pursuant to 326 IAC 6-1-2(a), the PM emissions from the aggregate dryer/mixer at the portable plant shall not exceed 0.07 gram per dry standard cubic meter (0.03 grain per dry standard cubic foot). Compliance with this limit will also ensure that the plant is in compliance with the emission limitation of 90 milligrams per dry standard cubic meter (0.04 grains per dry standard cubic foot) from 40 CFR 60.92 and 326 IAC 12-1.

D.1.7 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for aggregate dryer and drum mixer and any control devices.

Compliance Determination Requirements

D.1.8 Testing Requirements [326 IAC 2-8-5(a)(1), (4)] [326 IAC 2-1.1-11] [40 CFR 60.93] [326 IAC 12]

- (a) Within 180 days of issuance of this permit, in order to demonstrate compliance with Conditions D.1.5 and D.1.6, the Permittee shall perform PM and PM₁₀ testing of the aggregate dryer/mixer utilizing methods approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM₁₀ includes filterable and condensable PM₁₀. Testing shall be conducted in accordance with Section C- Performance Testing.
- (b) Pursuant to 40 CFR 60.93, compliance with the PM standards in 40 CFR 60.92 shall be determined by using Method 5 to determine particulate concentration and Method 9 to determine opacity. When determining the particulate concentration, the sampling time and sampling volume for each run shall be at least 60 minutes and 0.90 dry standard cubic meter (31.8 dry standard cubic feet).

D.1.9 Sulfur Dioxide Emissions and Sulfur Content

Compliance shall be determined utilizing one of the following options.

- (a) Pursuant to 326 IAC 3-7-4, the Permittee shall demonstrate that the sulfur dioxide emissions do not exceed five-tenths (0.5) pounds per million British thermal unit heat input when operating on No. 2 distillate oil or No. 4 distillate oil and one and six-tenths (1.6) pounds per million British thermal unit heat input when operating on re-refined (waste) oil by:
 - (1) Providing vendor analysis of fuel delivered, if accompanied by a vendor certification; or
 - (2) Analyzing the oil sample to determine the sulfur content of the oil via the procedures in 40 CFR 60, Appendix A, Method 19.
 - (A) Oil samples may be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted; and
 - (B) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling.
- (b) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from the aggregate dryer and drum mixer using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6.
- (c) In order to demonstrate compliance with Condition D.1.3(a), the Permittee shall demonstrate that weight percent sulfur dioxide in the fuels used does not exceed one half of a percent (0.5%) by weight when operating on No. 2 distillate oil, No. 4 distillate oil or reused (waste) oil, using the methods described in (a) of this condition.

A determination of noncompliance pursuant to any of the methods specified in (a) or (b) above shall not be refuted by evidence of compliance pursuant to the other method.

D.1.10 Particulate Matter (PM and PM₁₀)

In order to comply with Conditions D.1.5 and D.1.6, the baghouse for the aggregate dryer/mixer shall be in operation at all times when the aggregate dryer/mixer is in operation.

D.1.11 Used Oil Requirements [329 IAC 13]

The re-refined (waste) oil burned in the aggregate dryer shall comply with the used oil requirements

specified in 329 IAC 13 (Used Oil Management). Pursuant to 329 IAC 13-3-2 (Used Oil Specifications), used oil burned for energy recovery that is classified as off-specification used oil fuel shall comply with the provisions of 329 IAC 13-8 (Used Oil Burners Who Burn Off-specification Used Oil For Energy Recovery), including:

- (a) Receipt of an EPA identification number as outlined in 329 IAC 13-8-3 (Notification),
- (b) Compliance with the used oil storage requirements specified in 329 IAC 13-8-5 (Used Oil Storage), and
- (c) Maintaining records pursuant to 329 IAC 13-8-6 (Tracking).

The burning of mixtures of used oil and hazardous waste that is regulated under 329 IAC 3.1 is prohibited at this source.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

D.1.12 Visible Emissions Notations

- (a) Visible emission notations of the conveyors, material transfer points and aggregate dryer/mixer stack (SV1) exhaust shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

D.1.13 Parametric Monitoring

- (a) The Permittee shall record the total static pressure drop across the baghouse used in conjunction with the aggregate dryer and drum mixer, at least once per shift when the aggregate dryer and drum mixer are in operation when venting to the atmosphere. When for any one reading, the pressure drop across the baghouse is outside the normal range of 3.0 and 4.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.
- (b) The inlet temperature to the baghouse shall be maintained within a range of 225 and 325

degrees Fahrenheit to prevent overheating of the bags and to prevent low temperatures from mudding up the bags. In the event that bag failure has occurred due to rupture, melting, or any other reason, the Permittee shall take corrective action. The Preventive Maintenance Plan for this unit shall contain troubleshooting contingency and corrective actions for when the inlet temperature reading is outside of the above mentioned range for any one reading. The baghouse shall shutdown for visual inspection within 24 hours and bags shall be replaced as needed.

The instrument used for determining the pressure and temperature shall comply with Section C - Pressure Gauge and Other Instruments Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

D.1.14 Baghouse Inspections

An inspection shall be performed each calendar quarter of all bags controlling the aggregate dryer and drum mixer when venting to the atmosphere. A baghouse inspection shall be performed within three (3) months of redirecting vents to the atmosphere and every three (3) months thereafter. Inspections are optional when venting to the indoors. All defective bags shall be replaced.

D.1.15 Broken or Failed Bag Detection

In the event that bag failure has been observed:

- (a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B- Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.
- (b) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.1.16 Record Keeping Requirements

- (a) To document compliance with Condition D.1.4, the Permittee shall maintain records in accordance with (1) through (4) below.
 - (1) Calendar dates covered in the compliance determination period;
 - (2) A certification, signed by the owner or operator, that the records of the fuel supplier certifications represent all of the fuel combusted during the period, the natural gas fired boiler certification does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1); and

If the fuel supplier certification is used to demonstrate compliance the following, as a minimum, shall be maintained:

 - (3) The name of the fuel supplier; and
 - (4) A statement from the fuel supplier that certifies the sulfur content of the fuel oil.
- (b) To document compliance with Condition D.1.4(a), the Permittee shall keep records of the amount of each fuel used at the aggregate dryer.
- (c) To document compliance with Condition D.1.12, the Permittee shall maintain records of visible emission notations of the conveyors, material transfer points and aggregate dryer and drum mixer stack (SV1) exhaust once per shift.

- (d) To document compliance with Condition D.1.13, the Permittee shall maintain the following:
 - (1) Records of the total static pressure drop during normal operation once per shift when venting to the atmosphere.
 - (2) Records of the inlet temperature during normal operation once per shift when venting to the atmosphere.
- (e) To document compliance with Conditions D.1.14, the Permittee shall maintain records of the results of the inspections required under Conditions D.1.14 and the dates the vents are redirected.
- (f) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.17 Record Keeping Requirements [40 CFR 60.116b][326 IAC 12-1]

Storage tank MS2 shall comply with the New Source Performance Standards (NSPS), 326 IAC 12 (40 CFR Part 60.116b only, Subpart Kb). 40 CFR Part 60.116b requires the permittee to maintain accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel. Records shall be kept for the life of the storage tank.

D.1.18 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.1.4(a) shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

SECTION D.2

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]: Insignificant Activities

- (a) Fuel oil-fired combustion sources with heat input equal to or less than two million (2,000,000) British thermal units per hour and firing fuel containing less than five-tenths (0.5) percent sulfur by weight (Oil heater C2).
- (b) Storage tanks with capacity less than or equal to 1,000 gallons and annual throughputs less than 12,000 gallons, including one (1) No. 2 distillate fuel oil storage tank with a capacity of 550 gallons.
- (c) Vessels storing lubricating oil, hydraulic oils, machining oils, and machining fluids.
- (d) Closed loop heating and cooling systems.
- (e) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.
- (f) Paved and unpaved roads and parking lots with public access.
- (g) Asbestos abatement projects regulated by 326 IAC 14-10.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

There are no conditions applicable to these insignificant activities.

SECTION D.3

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]: Alternate Operating Scenario (co-location of the portable plant with the stationary plant in Washington, Indiana)

(a) Facilities at the Stationary Plant (Plant ID 027-03270) include the following:

- (1) One (1) batch mixer, identified as AP2, capable of producing 120 tons of asphalt per hour, with emissions exhausting through a cyclone (CE2) and scrubber (CE1), with emissions exiting through Stack SV1.
- (2) One (1) 69.1 million British thermal unit per hour natural gas, No. 1 or No. 2 distillate fuel oil, No. 4 distillate fuel oil, or re-refined (waste) oil-fired aggregate dryer, identified as AP1, with emissions exhausted through a cyclone (CE2) and scrubber (CE1), with emissions exiting through Stack SV1.

This plant also includes insignificant activities, including a 2.84 million British thermal unit per hour natural gas-fired hot oil heater and unpaved roads, as well as storage facilities.

(b) Facilities at the Portable Plant include the following:

- (1) One (1) 116 million British thermal units per hour aggregate dryer (C1), exhausting through the baghouse (CE1) and stack SV1, fired by No. 2 or No. 4 distillate fuel oil, re-refined (waste) oil or natural gas.
- (2) One (1) drum mixer (AP1), exhausting through the baghouse (CE1) and stack SV1, capacity: 350 tons of hot mix asphalt per hour.
- (3) One (1) liquid asphalt storage tank (MS2), heated by a 1.2 million British thermal units per hour oil heater (C2), capacity: 30,000 gallons.
- (4) One (1) No. 2 distillate fuel oil storage tank (MS4), capacity: 10,000 gallons.

This plant also includes insignificant activities listed in Section D.2.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.3.1 Portable Source

This portable asphalt plant shall comply with the requirements of this section (D.3) at all times while co-located with Rogers Group, Inc. of Washington, Indiana (Plant ID 027-03270). When the portable asphalt plant is not co-located with Rogers Group, Inc. of Washington, Indiana, the requirements of Section D.1 shall be applicable and the requirements of Section D.3 shall not be applicable.

D.3.2 General Provisions Relating to NSPS [326 IAC 12-1] [40 CFR 60, Subpart A]

The provisions of 40 CFR 60 Subpart A - General Provisions, which are incorporated as 326 IAC 12-1, apply to the facilities described in this section except when otherwise specified in 40 CFR 60 Subpart I and Subpart Kb.

D.3.3 Volatile Organic Compounds (VOC) [326 IAC 2-2] [40 CFR 52.21] [326 IAC 2-8-4] [326 IAC 8-5-2]

- (a) The owner or operator shall not process emulsified or cutback asphalt at the portable plant unless proper approval has been obtained from IDEM, OAQ.
- (b) Cutback asphalt liquid binder usage at the stationary plant shall be limited to no more than 131 tons of VOC solvent per twelve (12) consecutive month period, with compliance determined at the end of each month, and rapid cure cut back shall not be used. This limit, in conjunction with the fuel usage limitations of Conditions D.3.4 and D.3.5, which limit VOC emissions from combustion to 2.89 tons per year, will limit the total potential to emit VOC to less than 100 tons per year. Thus, the requirements of 326 IAC 2-7, Part 70, do not apply. Compliance with this limit shall also ensure that the requirements of 326 IAC 2-2 and 40 CFR 52.21, Prevention of Significant Deterioration (PSD), are not applicable. Liquid binders used in the production of cold mix asphalt shall be defined as follows:
 - (1) Cut back asphalt rapid cure, containing a maximum of 25.3% VOC solvent by weight in the liquid binder, with 95% by weight of the VOC solvent evaporating.
 - (2) Cut back asphalt medium cure, containing a maximum of 28.6% VOC solvent by weight in the liquid binder, with 70% by weight of the VOC solvent evaporating.
 - (3) Cut back asphalt slow cure, containing a maximum of 20% VOC solvent by weight in the liquid binder, with 25% by weight of the VOC solvent evaporating.
 - (4) Emulsified asphalt with solvent, containing a maximum of 15% VOC solvent by weight in the liquid binder, with 46.4% by weight of the VOC solvent in the liquid blend evaporating. The percent oil distillate in emulsified asphalt with solvent liquid, as determined by ASTM, must be 7% or less of the total emulsion by volume.
 - (5) Other asphalt with solvent binder, containing a maximum 25.9% VOC solvent by weight in the liquid binder, with 2.5% by weight of the VOC solvent evaporating.
- (c) Pursuant to 326 IAC 8-5-2, the Permittee shall not allow the use of asphalt emulsion containing more than seven percent (7%) oil distillate by volume of emulsion, except as used for the following purposes:
 - (1) penetrating prime coating;
 - (2) stockpile storage mix; and
 - (3) application during the months of November, December, January, February, and March.

D.3.4 Sulfur Dioxide (SO₂) [326 IAC 2-8-4] [326 IAC 7-1.1-1] [326 IAC 7-2-1] [326 IAC 2-2] [40 CFR 52.21]

- (a) Pursuant to 326 IAC 2-8-4, the total use of re-refined (waste) oils by the two (2) dryer burners shall be limited to no more than 3,700,935 gallons per twelve (12) consecutive month period, with compliance determined at the end of each month. Each gallon of No. 1 or No. 2 distillate fuel oil used at the dryer burners or hot oil heaters shall be considered equal to using 1.33 gallons of re-refined (waste) oils and each gallon of No. 4 distillate fuel oil used at the dryer burners shall be considered equal to using 1.40 gallons of re-refined (waste) oils. The sulfur content of the re-refined (waste) oil shall not exceed one half of a percent (0.5%) by weight and the sulfur content of the No. 1, No. 2 and No. 4 distillate oils shall not exceed one half of a percent (0.5%) by weight, based on a monthly weighted average. This will limit SO₂ emissions

from the use of distillate fuel oils or re-refined (waste) oil to 99.0 tons per year and the potential to emit SO₂ from the entire source to less than 100 tons per year. Thus, the requirements of 326 IAC 2-7, Part 70, do not apply. Compliance with this limit shall also ensure that the requirements of 326 IAC 2-2 and 40 CFR 52.21, Prevention of Significant Deterioration (PSD), are not applicable.

- (b) Pursuant to 326 IAC 7-1.1 (SO₂ Emissions Limitations), the SO₂ emissions from the aggregate dryers shall not exceed five tenths (0.5) pounds per million British thermal unit heat input when operating on No. 2 distillate oil or No. 4 distillate oil. Pursuant to 326 IAC 7-2-1, compliance shall be demonstrated on a thirty (30) day rolling weighted average.
- (c) Pursuant to 326 IAC 7-1.1 (SO₂ Emissions Limitations), the SO₂ emissions from the aggregate dryers shall not exceed one and six-tenths (1.6) pounds per million British thermal unit heat input when operating on re-refined (waste) oil. Pursuant to 326 IAC 7-2-1, compliance shall be demonstrated on a thirty (30) day rolling weighted average.

D.3.5 Nitrogen Oxides (NO_x) [326 IAC 2-8-4]

Pursuant to 326 IAC 2-8-4, the total use of natural gas by the dryer burner and hot oil heater at the stationary plant shall be limited to less than 2,000,000,000 cubic feet per twelve (12) consecutive month period, total, with compliance determined at the end of each month. Each cubic foot of natural gas used at the dryer burner at the portable plant shall be considered equal to using 1.9 cubic feet of natural gas at the stationary plant, each gallon of No. 1, No. 2 or No. 4 distillate fuel oil used at the dryer burner at the stationary plant or hot oil heater at the portable plant shall be considered equal to using 200 cubic feet of natural gas at the stationary plant, each gallon of No. 2 or No. 4 distillate fuel oils used at the dryer burner at the portable plant shall be considered equal to using 240 cubic feet of natural gas at the stationary plant, and each gallon of re-refined (waste) oil used at the dryer burners at either plant shall be considered equal to using 160 cubic feet of natural gas at the stationary plant. This will limit NO_x emissions from the use of natural gas, distillate fuel oils or re-refined (waste) oil to less than 100 tons per year. Thus, the requirements of 326 IAC 2-7, Part 70, do not apply.

D.3.6 Particulate Matter (PM₁₀) [326 IAC 2-8-4] [326 IAC 2-2] [40 CFR 52.21]

- (a) Pursuant to 326 IAC 2-8-4, the PM₁₀ emissions from the aggregate dryer/mixer at the portable plant shall not exceed 10.0 pounds per hour, total.
- (b) Pursuant to 326 IAC 2-8-4, the PM₁₀ emissions from the aggregate dryer/mixer at the stationary plant shall not exceed 6.89 pounds per hour, total.

These limitations will limit the total potential to emit PM₁₀ from the aggregate dryer/mixer at the portable plant to 43.8 tons per year, the potential to emit PM₁₀ from the aggregate dryer/mixer at the stationary plant to 30.2 tons per year, and the total combined source potential to emit PM₁₀ to less than 100 tons per year. Therefore, the requirements of 326 IAC 2-7, Part 70, do not apply. Compliance with this limit shall also ensure that the requirements of 326 IAC 2-2 and 40 CFR 52.21, Prevention of Significant Deterioration (PSD), are not applicable.

D.3.7 Particulate Matter (PM) [326 IAC 2-2] [40 CFR 60.92] [326 IAC 12-1] [40 CFR 52.21] [326 IAC 6-3-2]

- (a) The potential to emit PM shall be limited as follows:
 - (1) The potential to emit PM from the aggregate dryer/mixer at the portable plant shall not exceed 6.55 pounds per hour, total.
 - (2) The potential to emit PM from the aggregate dryer/mixer at the stationary plant shall not exceed 28.6 pounds per hour, total. Compliance with this limit will also ensure that the aggregate dryer/mixer at the stationary plant complies with 326 IAC 6-3-2(e), which limits the potential to emit particulate to 53.1 pounds per hour when operating at a process weight rate of 120 tons per hour.

These limitations will limit the potential to emit PM from the aggregate dryer/mixer at the portable plant to less than 28.7 tons per year, the potential to emit PM from the aggregate

dryer/mixer at the stationary plant to less than 125 tons per year, and the potential to emit PM from the entire source to less than 250 tons per year. Thus, the requirements of 326 IAC 2-2 and 40 CFR 52.21, PSD, are not applicable.

- (b) Pursuant to 40 CFR 60.92 and 326 IAC 12-1, the opacity of emissions from the aggregate dryer/ mixer stack at the portable plant (SV1) shall be less than twenty percent (20%).
- (c) Pursuant to 326 IAC 6-1-2(a), the PM emissions from the aggregate dryer/mixer at the portable plant shall not exceed 0.07 gram per dry standard cubic meter (0.03 grain per dry standard cubic foot). Compliance with this limit will also ensure that the plant is in compliance with the emission limitation of 90 milligrams per dry standard cubic meter (0.04 grains per dry standard cubic foot) from 40 CFR 60.92 and 326 IAC 12-1.
- (d) Pursuant to 40 CFR 60.92 and 326 IAC 12-1, on and after the date of the performance test required by Condition D.3.9 (b), the Permittee shall not discharge into the atmosphere any gases which contain particulate matter in excess of 90 milligrams per dry standard cubic meter (0.04 grains per dry standard cubic foot) or exhibit an opacity of twenty percent (20%) or more.

D.3.8 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for aggregate dryer and drum mixer and any control devices.

Compliance Determination Requirements

D.3.9 Testing Requirements [326 IAC 2-8-5(a)(1), (4)] [326 IAC 2-1.1-11] [40 CFR 60.93] [326 IAC 12]

- (a) Within 180 days of issuance of this permit, in order to demonstrate compliance with Conditions D.3.6(a) and D.3.7(a)(1), the Permittee shall perform PM and PM₁₀ testing of the aggregate dryer/mixer at the portable plant utilizing methods approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM₁₀ includes filterable and condensible PM₁₀. Testing shall be conducted in accordance with Section C- Performance Testing.
- (b) Between June 17, 2004 and December 17, 2004, in order to demonstrate compliance with Conditions D.3.6(b) and D.3.7(a)(2), the Permittee shall perform PM and PM₁₀ testing of the aggregate dryer/mixer at the stationary plant utilizing methods approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM₁₀ includes filterable and condensible PM₁₀. Testing shall be conducted in accordance with Section C- Performance Testing.
- (c) Pursuant to 40 CFR 60.93, compliance with the PM standards in 40 CFR 60.92 shall be determined by using Method 5 to determine particulate concentration and Method 9 to determine opacity. When determining the particulate concentration, the sampling time and sampling volume for each run shall be at least 60 minutes and 0.90 dry standard cubic meter (31.8 dry standard cubic feet).

D.3.10 Sulfur Dioxide Emissions and Sulfur Content

Compliance shall be determined utilizing one of the following options.

- (a) Pursuant to 326 IAC 3-7-4, the Permittee shall demonstrate that the sulfur dioxide emissions do not exceed five-tenths (0.5) pounds per million British thermal unit heat input when operating on No. 1 or No. 2 distillate oil or No. 4 distillate oil and one and six-tenths (1.6)

pounds per million British thermal unit heat input when operating on re-refined (waste) oil by:

- (1) Providing vendor analysis of fuel delivered, if accompanied by a vendor certification;
or
- (2) Analyzing the oil sample to determine the sulfur content of the oil via the procedures in 40 CFR 60, Appendix A, Method 19.
 - (A) Oil samples may be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted; and
 - (B) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling.
- (b) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from the aggregate dryer and drum mixer using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6.
- (c) In order to demonstrate compliance with Condition D.1.3(a), the Permittee shall demonstrate that weight percent sulfur dioxide in the fuels used does not exceed one half of a percent (0.5%) by weight when operating on No. 2 distillate oil, No. 4 distillate oil or reused (waste) oil, using the methods described in (a) of this condition.

A determination of noncompliance pursuant to any of the methods specified in (a) or (b) above shall not be refuted by evidence of compliance pursuant to the other method.

D.3.11 Particulate Matter (PM and PM₁₀)

- (a) In order to comply with Conditions D.3.6(a) and D.3.7(a)(1), the baghouse for the aggregate dryer/mixer at the portable plant shall be in operation at all times when the aggregate dryer/mixer is in operation.
- (b) In order to comply with Conditions D.3.6(b) and D.3.7(a)(2), the cyclone and scrubber for the aggregate dryer/mixer at the stationary plant shall be in operation at all times when the aggregate dryer/mixer is in operation.

D.3.12 Used Oil Requirements [329 IAC 13]

The re-refined (waste) oil burned in the aggregate dryers shall comply with the used oil requirements specified in 329 IAC 13 (Used Oil Management). Pursuant to 329 IAC 13-3-2 (Used Oil Specifications), used oil burned for energy recovery that is classified as off-specification used oil fuel shall comply with the provisions of 329 IAC 13-8 (Used Oil Burners Who Burn Off-specification Used Oil For Energy Recovery), including:

- (a) Receipt of an EPA identification number as outlined in 329 IAC 13-8-3 (Notification),
- (b) Compliance with the used oil storage requirements specified in 329 IAC 13-8-5 (Used Oil Storage), and
- (c) Maintaining records pursuant to 329 IAC 13-8-6 (Tracking).

The burning of mixtures of used oil and hazardous waste that is regulated under 329 IAC 3.1 is prohibited at this source.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

D.3.13 Visible Emissions Notations

- (a) Visible emission notations of the conveyors, material transfer points and aggregate dryer/mixer stack (SV1) exhaust at the portable plant shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) Visible emission notations of the conveyors, material transfer points and aggregate dryer/mixer stack (SV1) exhaust at the stationary plant shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (c) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (d) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (e) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (f) The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

D.3.14 Parametric Monitoring

- (a) The Permittee shall record the total static pressure drop across the baghouse used in conjunction with the aggregate dryer and drum mixer at the portable plant, at least once per shift when the aggregate dryer and drum mixer are in operation when venting to the atmosphere. When for any one reading, the pressure drop across the baghouse is outside the normal range of 3.0 and 4.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.
- (b) The inlet temperature to the baghouse used in conjunction with the aggregate dryer and drum mixer at the portable plant shall be maintained within a range of 225 and 325 degrees Fahrenheit to prevent overheating of the bags and to prevent low temperatures from mudding up the bags. In the event that bag failure has occurred due to rupture, melting, or any other reason, the Permittee shall take corrective action. The Preventive Maintenance Plan for this unit shall contain troubleshooting contingency and corrective actions for when the inlet temperature reading is outside of the above mentioned range for any one reading. The baghouse shall shutdown for visual inspection within 24 hours and bags shall be replaced as needed.
- (c) The Permittee shall record the total static pressure drop across the cyclone and scrubber

combination used in conjunction with the aggregate dryer and batch mixer at the stationary plant, at least once per shift when the aggregate dryer and batch mixer are in operation when venting to the atmosphere. When for any one reading, the pressure drop across the scrubber is outside the normal range of 7.0 and 10.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

- (d) The Permittee shall record the scrubbing liquid (water) flow rate across the scrubber used in conjunction with the aggregate dryer and batch mixer at the stationary plant, at least once per shift when the aggregate dryer and batch mixer are in operation when venting to the atmosphere. When for any one reading, the flow rate is less than the normal range of 200 gallons of water per minute or a minimum range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Preparation, Implementation, Records, and Reports. A flow rate reading that is below the mentioned value is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

The instruments used for determining the pressure, temperature and flow rate shall comply with Section C - Pressure Gauge and Other Instruments Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

D.3.15 Scrubber Inspections

An inspection shall be performed quarterly of the scrubber controlling the aggregate dryer and batch mixer at the stationary plant when venting to the atmosphere. Defective scrubber parts shall be replaced. A record shall be kept of the results of the inspection.

D.3.16 Scrubber Failure Detection

In the event that a scrubber failure has been observed:

Failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

D.3.17 Cyclone Inspections

An inspection shall be performed each calendar quarter of the cyclone controlling the aggregate dryer and batch mixer at the stationary plant when venting to the atmosphere. A cyclone inspection shall be performed within three (3) months of redirecting vents to the atmosphere and every three (3) months thereafter. Inspections are optional when venting to the indoors.

D.3.18 Cyclone Failure Detection

In the event that cyclone failure has been observed:

Failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

D.3.19 Baghouse Inspections

An inspection shall be performed each calendar quarter of all bags controlling the aggregate dryer and drum mixer at the portable plant when venting to the atmosphere. A baghouse inspection shall be performed within three (3) months of redirecting vents to the atmosphere and every three (3) months thereafter. Inspections are optional when venting to the indoors. All defective bags shall be replaced.

D.3.20 Broken or Failed Bag Detection

In the event that bag failure has been observed:

- (a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B- Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.
- (b) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.3.21 Record Keeping Requirements

- (a) To document compliance with Condition D.3.4, the Permittee shall maintain records in accordance with (1) through (4) below.
 - (1) Calendar dates covered in the compliance determination period;
 - (2) A certification, signed by the owner or operator, that the records of the fuel supplier certifications represent all of the fuel combusted during the period, the natural gas fired boiler certification does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1); and

If the fuel supplier certification is used to demonstrate compliance the following, as a minimum, shall be maintained:

 - (3) The name of the fuel supplier; and
 - (4) A statement from the fuel supplier that certifies the sulfur content of the fuel oil.
- (b) To document compliance with Condition D.3.3, the Permittee shall maintain records of the grades of cold mix (cutback) used and the total amount and VOC content of each binder used.
- (c) To document compliance with Conditions D.3.4(a) and D.3.5, the Permittee shall keep records of the amount of each fuel used at the each of the two (2) aggregate dryers.

- (d) To document compliance with Condition D.3.13, the Permittee shall maintain records of visible emission notations of the conveyors, material transfer points and aggregate dryer and mixer stacks (SV1 at the portable plant and SV1 at the stationary plant) exhausts once per shift.
- (e) To document compliance with Condition D.3.14(a) and (b), the Permittee shall maintain the following for the baghouse at the portable plant:
 - (1) Records of the total static pressure drop during normal operation when venting to the atmosphere once per shift.
 - (2) Records of the inlet temperature during normal operation when venting to the atmosphere once per shift.
- (f) To document compliance with Condition D.3.14(c) and (d), the Permittee shall maintain the following for the cyclone and scrubber at the stationary plant:
 - (1) Records of the total static pressure drop during normal operation when venting to the atmosphere once per shift.
 - (2) Records of the scrubbing liquid (water) flow rate during normal operation when venting to the atmosphere once per shift.
- (g) To document compliance with Conditions D.3.15, D.3.17 and D.3.19, the Permittee shall maintain records of the results of the inspections required under Conditions D.3.15, D.3.17 and D.3.19 and the dates the vents are redirected.
- (h) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.3.22 Record Keeping Requirements [40 CFR 60.116b][326 IAC 12-1]

Storage tank MS2 shall comply with the New Source Performance Standards (NSPS), 326 IAC 12 (40 CFR Part 60.116b only, Subpart Kb). 40 CFR Part 60.116b requires the permittee to maintain accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel. Records shall be kept for the life of the storage tank.

D.3.23 Reporting Requirements

A quarterly summary of the information to document compliance with Conditions D.3.3, D.3.4(a) and D.3.5 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY**

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
CERTIFICATION**

Source Name: Rogers Group, Incorporated - Portable Asphalt
Source Address: Portable
Mailing Address: P.O. Box 25250, Nashville, Tennessee 37202-5250
FESOP No.: F 027-14791-05023

**This certification shall be included when submitting monitoring, testing reports/results
or other documents as required by this permit.**

Please check what document is being certified:

- 9 Annual Compliance Certification Letter
- 9 Test Result (specify) _____
- 9 Report (specify) _____
- 9 Notification (specify) _____
- 9 Affidavit (specify) _____
- 9 Other (specify) _____

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Phone:

Date:

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE BRANCH
100 North Senate Avenue
P.O. Box 6015
Indianapolis, Indiana 46206-6015
Phone: 317-233-5674
Fax: 317-233-5967**

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
EMERGENCY OCCURRENCE REPORT**

Source Name: Rogers Group, Incorporated - Portable Asphalt
Source Address: Portable
Mailing Address: P.O. Box 25250, Nashville, Tennessee 37202-5250
FESOP No.: F 027-14791-05023

This form consists of 2 pages

Page 1 of 2

9 This is an emergency as defined in 326 IAC 2-7-1(12)
 (The Permittee must notify the Office of Air Quality (OAQ), within four (4) business hours (1-800-451-6027 or 317-233-5674, ask for Compliance Section); and
 (The Permittee must submit notice in writing or by facsimile within two (2) days (Facsimile Number: 317-233-5967), and follow the other requirements of 326 IAC 2-7-16

If any of the following are not applicable, mark N/A

Facility/Equipment/Operation:

Control Equipment:

Permit Condition or Operation Limitation in Permit:

Description of the Emergency:

Describe the cause of the Emergency:

If any of the following are not applicable, mark N/A

Page 2 of 2

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency? Y N Describe:
Type of Pollutants Emitted: TSP, PM-10, SO ₂ , VOC, NO _x , CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by: _____

Title / Position: _____

Date: _____

Phone: _____

A certification is not required for this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION**

FESOP Quarterly Report

Source Name: Rogers Group, Incorporated - Portable Asphalt
Source Address: Portable
Mailing Address: P.O. Box 25250, Nashville, Tennessee 37202-5250
FESOP No.: F 027-14791-05023
Facility: Aggregate dryer burner and hot oil heater
Parameter: SO₂ Emissions; Fuel usage
Limit: 3,700,935 gallons of re-refined (waste) oil per twelve (12) consecutive month period, with compliance determined at the end of each month, where each gallon of No. 2 distillate fuel oil used at the dryer burner or hot oil heater shall be considered equal to using 1.33 gallons of re-refined (waste) oils and each gallon of No. 4 distillate fuel oil used shall be considered equal to using 1.40 gallons of re-refined (waste) oils. This limit is equivalent to SO₂ emissions of less than 100 tons per year from the dryer burner.

YEAR: _____

Month	Re-refined (waste) oil usage plus equivalent of other fuels to re-refined (waste) oil (gallons)	Re-refined (waste) oil usage plus equivalent of other fuels to re-refined (waste) oil (gallons)	Re-refined (waste) oil usage plus equivalent of other fuels to re-refined (waste) oil (gallons)
	This Month	Previous 11 Months	12 Month Total

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

FESOP Quarterly Report

Source Name: Rogers Group, Incorporated - Portable Asphalt
Source Address: Portable plant co-located with Rogers Group, Inc. of Washington, Indiana, at 412 Clark Road, Washington, Indiana 47501
Mailing Address: P.O. Box 25250, Nashville, Tennessee 37202-5250
FESOP No.: F 027-14791-05023
Facility: Two (2) aggregate dryer burners and two (2) hot oil heaters
Parameter: SO₂ Emissions; Fuel usage
Limit: 3,700,935 gallons of re-refined (waste) oil per twelve (12) consecutive month period, total, with compliance determined at the end of each month, where each gallon of No. 1 or No. 2 distillate fuel oil used at the dryer burner or hot oil heater shall be considered equal to using 1.33 gallons of re-refined (waste) oils and each gallon of No. 4 distillate fuel oil used shall be considered equal to using 1.40 gallons of re-refined (waste) oils. This limit is equivalent to SO₂ emissions of less than 100 tons per year from the dryer burners.

YEAR: _____

Month	Re-refined (waste) oil usage plus equivalent of other fuels to re-refined (waste) oil (gallons)	Re-refined (waste) oil usage plus equivalent of other fuels to re-refined (waste) oil (gallons)	Re-refined (waste) oil usage plus equivalent of other fuels to re-refined (waste) oil (gallons)
	This Month	Previous 11 Months	12 Month Total

- 9 No deviation occurred in this quarter.
9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF AIR QUALITY
 COMPLIANCE DATA SECTION**

FESOP Quarterly Report

Source Name: Rogers Group, Incorporated - Portable Asphalt
 Source Address: Portable plant co-located with Rogers Group, Inc. of Washington, Indiana, at 412 Clark Road, Washington, Indiana 47501
 Mailing Address: P.O. Box 25250, Nashville, Tennessee 37202-5250
 FESOP No.: F 027-14791-05023
 Facility: Two (2) aggregate dryer burners and two (2) hot oil heaters
 Parameter: NO_x Emissions; Fuel usage at the stationary plant
 Limit: 2,000,000,000 cubic feet per twelve (12) consecutive month period, total, with compliance determined at the end of each month, where each cubic foot of natural gas used at the dryer burner at the portable plant shall be considered equal to using 1.9 cubic feet of natural gas at the stationary plant, each gallon of No. 1, No. 2 or No. 4 distillate fuel oil used at the dryer burner at the stationary plant or hot oil heater at the portable plant shall be considered equal to using 200 cubic feet of natural gas at the stationary plant, each gallon of No. 2 or No. 4 distillate fuel oils used at the dryer burner at the portable plant shall be considered equal to using 240 cubic feet of natural gas at the stationary plant, and each gallon of re-refined (waste) oil used at the dryer burners at either plant shall be considered equal to using 160 cubic feet of natural gas at the stationary plant.

YEAR: _____

Month	Natural gas usage at the stationary plant plus equivalent of other fuels at the stationary plant and all fuels at the portable plant to natural gas at the stationary plant (million cubic feet)	Natural gas usage at the stationary plant plus equivalent of other fuels at the stationary plant and all fuels at the portable plant to natural gas at the stationary plant (million cubic feet)	Natural gas usage at the stationary plant plus equivalent of other fuels at the stationary plant and all fuels at the portable plant to natural gas at the stationary plant (million cubic feet)
	This Month	Previous 11 Months	12 Month Total

9 No deviation occurred in this quarter.
 9 Deviation/s occurred in this quarter.
 Deviation has been reported on: _____

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION**

FESOP Quarterly Report

Source Name: Rogers Group, Incorporated - Portable Asphalt
Source Address: Portable plant co-located with Rogers Group, Inc. of Washington, Indiana, at 412 Clark Road, Washington, Indiana 47501
Mailing Address: P.O. Box 25250, Nashville, Tennessee 37202-5250
FESOP No.: F 027-14791-05023
Facility: Stationary asphalt plant
Parameter: VOC emissions; Cutback asphalt liquid binder usage
Limit: No more than 131 tons of VOC solvent per twelve (12) consecutive month period, with compliance determined at the end of each month

YEAR: _____

Month	Binder usage (tons)	Binder usage (tons)	Binder usage (tons)
	This Month	Previous 11 Months	12 Month Total

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION**

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT**

Source Name: Rogers Group, Incorporated - Portable Asphalt
Source Address: Portable
Mailing Address: P.O. Box 25250, Nashville, Tennessee 37202-5250
FESOP No.: F 027-14791-05023

Months: _____ to _____ Year: _____

Page 1 of 2

This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. Deviations that are required to be reported by an applicable requirement shall be reported according to the schedule stated in the applicable requirement and do not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".

9 NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.

9 THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD

Permit Requirement (specify permit condition #)

Date of Deviation:

Duration of Deviation:

Number of Deviations:

Probable Cause of Deviation:

Response Steps Taken:

Permit Requirement (specify permit condition #)

Date of Deviation:

Duration of Deviation:

Number of Deviations:

Probable Cause of Deviation:

Response Steps Taken:

Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Form Completed By: _____

Title/Position: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

October 11, 2002

Indiana Department of Environmental Management Office of Air Quality

Addendum to the Technical Support Document for Federally Enforceable State Operating Permit (FESOP) Renewal

Source Name: Rogers Group, Incorporated - Portable Asphalt
Source Location: Portable (currently located at 412 Clark Road, Washington, Indiana 47501)
County: Daviess
SIC Code: 2951
Operation Permit No.: F 027-14791-05023
Permit Reviewer: CarrieAnn Paukowits

On September 4, 2002, the Office of Air Quality (OAQ) had a notice published in the Washington Times Herald, Washington, Indiana, stating that Rogers Group, Incorporated - Portable Asphalt had applied for a Federally Enforceable State Operating Permit (FESOP) renewal to continue to operate a portable drum hot mix asphalt plant with a baghouse as control. The notice also stated that OAQ proposed to issue a FESOP renewal for this operation and provided information on how the public could review the proposed FESOP renewal and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this FESOP renewal should be issued as proposed.

Upon further review, the OAQ has decided to make the following changes to the FESOP renewal. The permit language is changed to read as follows (deleted language appears as ~~strikeouts~~, new language is **bolded**):

Change 1:

In order to clarify that the portable source may not co-locate with any Rogers Group, Incorporated, asphalt plant, other than the plant described in Section D.3 of the FESOP, without prior IDEM, OAQ, approval, Condition C.22 is revised as follows:

C.22 Relocation of Portable Sources [326 IAC 2-14-4]

-
- (a) This permit is approved for operation in all areas of Indiana except in severe nonattainment areas for ozone (at the time of this permit's issuance these areas were Lake and Porter Counties). This determination is based on the requirements Prevention of Significant Deterioration in 326 IAC 2-2 and 40 CFR 52.21, and Emission Offset requirements in 326 IAC 2-3. A thirty (30) day advance notice of relocation must be given to IDEM, OAQ and a "Relocation Site Approval" letter must be obtained before relocating. The notification by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
 - (b) The Permittee shall also notify the applicable local air pollution control agency when relocating to or from one of the following:
 - (1) Madison County - (Anderson Office of Air Management)
 - (2) City of Evansville plus four (4) miles beyond the corporate limits but not outside Vanderburgh County - (Evansville EPA)
 - (3) City of Gary - (Gary Air and Land Pollution Control)
 - (4) City of Hammond - (Hammond Department of Environmental Management)

- (5) Marion County - (Indianapolis Air Pollution Control Agency)
- (6) St. Joseph County - (St. Joseph County Health Department)
- (7) Vigo County - (Vigo County Air Pollution Department)
- (c) A valid operation permit consists of this document and any subsequent "Relocation Site Approval" letter specifying the current location of the portable plant.
- (d) **The Permittee shall request a permit revision and obtain IDEM, OAQ, approval prior to co-locating with any Roger's Group, Incorporated source in Indiana, other than the plant described in Section D.3.**

Change 2:

The plant identification number for the stationary plant has been added to facility description box in Section D.3 and Condition D.3.1 to specify the plant with which the portable plant is permitted to co-locate, as follows:

Facility Description [326 IAC 2-8-4(10)]: Alternate Operating Scenario (co-location of the portable plant with the stationary plant in Washington, Indiana)

- (a) Facilities at the Stationary Plant (**Plant ID 027-03270**) include the following:
 - (1) One (1) batch mixer, identified as AP2, capable of producing 120 tons of asphalt per hour, with emissions exhausting through a cyclone (CE2) and scrubber (CE1), with emissions exiting through Stack SV1.
 - (2) One (1) 69.1 million British thermal unit per hour natural gas, No. 1 or No. 2 distillate fuel oil, No. 4 distillate fuel oil, or re-refined (waste) oil-fired aggregate dryer, identified as AP1, with emissions exhausted through a cyclone (CE2) and scrubber (CE1), with emissions exiting through Stack SV1.

This plant also includes insignificant activities, including a 2.84 million British thermal unit per hour natural gas-fired hot oil heater and unpaved roads, as well as storage facilities.

- (b) Facilities at the Portable Plant include the following:
 - (1) One (1) 116 million British thermal units per hour aggregate dryer (C1), exhausting through the baghouse (CE1) and stack SV1, fired by No. 2 or No. 4 distillate fuel oil, re-refined (waste) oil or natural gas.
 - (2) One (1) drum mixer (AP1), exhausting through the baghouse (CE1) and stack SV1, capacity: 350 tons of hot mix asphalt per hour.
 - (3) One (1) liquid asphalt storage tank (MS2), heated by a 1.2 million British thermal units per hour oil heater (C2), capacity: 30,000 gallons.
 - (4) One (1) No. 2 distillate fuel oil storage tank (MS4), capacity: 10,000 gallons.

This plant also includes insignificant activities listed in Section D.2.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Rogers Group, Incorporated - Portable Asphalt
Portable
Permit Reviewer: CAP/MES

Page 3 of 7
F 027-14791-05023

D.3.1 Portable Source

This portable asphalt plant shall comply with the requirements of this section (D.3) at all times while co-located with Rogers Group, Inc. of Washington, Indiana (**Plant ID 027-03270**). When the portable asphalt plant is not co-located with Rogers Group, Inc. of Washington, Indiana, the requirements of Section D.1 shall be applicable and the requirements of Section D.3 shall not be applicable.

Change 3:

Since the baghouse, cyclone and scrubber cannot re-direct to vent indoors, Conditions D.1.16 and D.3.21 are revised as follows:

D.1.16 Record Keeping Requirements

(a) To document compliance with Condition D.1.4, the Permittee shall maintain records in accordance with (1) through (4) below.

- (1) Calendar dates covered in the compliance determination period;
- (2) A certification, signed by the owner or operator, that the records of the fuel supplier certifications represent all of the fuel combusted during the period, the natural gas fired boiler certification does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1); and

If the fuel supplier certification is used to demonstrate compliance the following, as a minimum, shall be maintained:

- (3) The name of the fuel supplier; and
 - (4) A statement from the fuel supplier that certifies the sulfur content of the fuel oil.
- (b) To document compliance with Condition D.1.4(a), the Permittee shall keep records of the amount of each fuel used at the aggregate dryer.
- (c) To document compliance with Condition D.1.12, the Permittee shall maintain records of visible emission notations of the conveyors, material transfer points and aggregate dryer and drum mixer stack (SV1) exhaust once per shift.
- (d) To document compliance with Condition D.1.13, the Permittee shall maintain the following:
- (1) Records of the total static pressure drop during normal operation once per shift when venting to the atmosphere.
 - (2) Records of the inlet temperature during normal operation once per shift when venting to the atmosphere.
 - ~~(3) Documentation of the dates vents are redirected.~~
- (e) To document compliance with Conditions D.1.14, the Permittee shall maintain records of the results of the inspections required under Conditions D.1.14 and the dates the vents are redirected.
- (f) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

Rogers Group, Incorporated - Portable Asphalt
Portable
Permit Reviewer: CAP/MES

Page 5 of 7
F 027-14791-05023

D.3.21 Record Keeping Requirements

- (a) To document compliance with Condition D.3.4, the Permittee shall maintain records in accordance with (1) through (4) below.
- (1) Calendar dates covered in the compliance determination period;
 - (2) A certification, signed by the owner or operator, that the records of the fuel supplier certifications represent all of the fuel combusted during the period, the natural gas fired boiler certification does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1); and
- If the fuel supplier certification is used to demonstrate compliance the following, as a minimum, shall be maintained:
- (3) The name of the fuel supplier; and
 - (4) A statement from the fuel supplier that certifies the sulfur content of the fuel oil.
- (b) To document compliance with Condition D.3.3, the Permittee shall maintain records of the grades of cold mix (cutback) used and the total amount and VOC content of each binder used.
- (c) To document compliance with Conditions D.3.4(a) and D.3.5, the Permittee shall keep records of the amount of each fuel used at the each of the two (2) aggregate dryers.
- (d) To document compliance with Condition D.3.13, the Permittee shall maintain records of visible emission notations of the conveyors, material transfer points and aggregate dryer and mixer stacks (SV1 at the portable plant and SV1 at the stationary plant) exhausts once per shift.
- (e) To document compliance with Condition D.3.14(a) and (b), the Permittee shall maintain the following for the baghouse at the portable plant:
- (1) Records of the total static pressure drop during normal operation when venting to the atmosphere once per shift.
 - (2) Records of the inlet temperature during normal operation when venting to the atmosphere once per shift.
 - ~~(3) Documentation of the dates vents are redirected.~~
- (f) To document compliance with Condition D.3.14(c) and (d), the Permittee shall maintain the following for the cyclone and scrubber at the stationary plant:
- (1) Records of the total static pressure drop during normal operation when venting to the atmosphere once per shift.
 - (2) Records of the scrubbing liquid (water) flow rate during normal operation when venting to the atmosphere once per shift.
 - ~~(3) Documentation of the dates vents are redirected.~~
- (g) To document compliance with Conditions D.3.15, D.3.17 and D.3.19, the Permittee shall maintain records of the results of the inspections required under Conditions D.3.15, D.3.17 and

D.3.19 and the dates the vents are redirected.

- (h) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

October 11, 2002

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD)
for a Federally Enforceable State Operating Permit (FESOP) Renewal

Source Background and Description

Source Name:	Rogers Group, Incorporated - Portable Asphalt
Source Location:	Portable (currently located at 412 Clark Road, Washington, Indiana 47501)
County:	Daviess
SIC Code:	2951
Operation Permit No.:	F 027-14791-05023
Permit Reviewer:	CarrieAnn Paukowits

The Office of Air Quality (OAQ) has reviewed a FESOP renewal application from Rogers Group, Inc. - Portable Asphalt relating to the operation of a portable drum hot mix asphalt plant. Rogers Group, Inc. - Portable Asphalt was issued FESOP 055-7575-05023 on August 4, 1997.

Source Definition

This source is a portable source. The source is currently co-located with Rogers Group, Inc. of Washington, Indiana, a stationary asphalt plant. The stationary plant is currently permitted under F027-14746-03270, issued on December 17, 2001. An alternate operating scenario for this portable plant was permitted under Significant Permit Revision 027-14825-05023, issued on December 17, 2001, to allow this source to co-locate with Rogers Group, Inc. of Washington, Indiana.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units and pollution control devices:

- (a) One (1) 116 million British thermal units per hour aggregate dryer (C1), exhausting through the baghouse (CE1) and stack SV1, fired by No. 2 or No. 4 distillate fuel oil, re-refined (waste) oil or natural gas.
- (b) One (1) drum mixer (AP1), exhausting through the baghouse (CE1) and stack SV1, capacity: 350 tons of hot mix asphalt per hour.
- (c) One (1) liquid asphalt storage tank (MS2), heated by a 1.2 million British thermal units per hour oil heater (C2), capacity: 30,000 gallons.
- (d) One (1) No. 2 distillate fuel oil storage tank (MS4), capacity: 10,000 gallons.

Unpermitted Emission Units and Pollution Control Equipment

There are no unpermitted facilities operating at this source during this review process.

Rogers Group, Incorporated - Portable Asphalt
Portable
Permit Reviewer: CAP/MES

Page 2 of 31
F 027-14791-05023

New Emission Units and Pollution Control Equipment Receiving New Source Review Approval

There are no new facilities proposed at this source during this review process.

In the FESOP Renewal application, the applicant requested that the aggregate burner also be permitted to operate on No. 4 distillate fuel oil and re-used oil, in addition to No. 2 distillate fuel oil and natural gas. Those fuels were to be included in the FESOP under Significant Permit Revision 027-15129-05023, which was combined into Significant Permit Revision 027-14825-05023, issued on December 17, 2001. The additional fuels were inadvertently left out of the final permit. All fuels are listed as permitted in this approval.

Insignificant Activities

The source also consists of the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (a) Fuel oil-fired combustion sources with heat input equal to or less than two million (2,000,000) British thermal units per hour and firing fuel containing less than five-tenths (0.5) percent sulfur by weight (Oil heater C2).
- (b) Storage tanks with capacity less than or equal to 1,000 gallons and annual throughputs less than 12,000 gallons, including one (1) No. 2 distillate fuel oil storage tank with a capacity of 550 gallons.
- (c) Vessels storing lubricating oil, hydraulic oils, machining oils, and machining fluids.
- (d) Closed loop heating and cooling systems.
- (e) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.
- (f) Paved and unpaved roads and parking lots with public access.
- (g) Asbestos abatement projects regulated by 326 IAC 14-10.

Existing Approvals

- (a) FESOP 055-7575-05023, issued on August 4, 1997; and
- (b) Significant Permit Revision 027-14825-05023, issued on December 17, 2001.

All conditions from previous approvals were incorporated into this FESOP except the following:

- (a) Significant Permit Revision 027-14825-05023, issued on December 17, 2001

Condition D.1.2 and D.3.7:

Pursuant to 326 IAC 6-1-2, particulate matter emissions from the aggregate dryer/mixer shall not exceed 0.030 grains per dry standard cubic foot equivalent to 11.0 pounds per hour. Compliance with these limits will satisfy the New Source Performance Standards, 326 IAC 12 (40 CFR 60.90 to 60.93, Subpart I).

Reason not incorporated:

The aggregate dryer/mixer must still comply with the requirements of 326 IAC 6-1, which limits PM emissions to 0.03 grains per dry standard cubic foot. However, since no specific flow rate is required, this limit does not equate to a specific pound per hour limit. In addition the limitation of 11.0 pounds per hour does not make the source a minor source pursuant to 326 IAC 2-3, Emission Offset, because it did not take screening emissions into account. The 11.0 pound per hour emission limit has been removed from the permit, and a revised pound per hour emission limit is included in the permit to make the requirements of 326 IAC 2-2, PSD, and 326 IAC 2-3, Emission Offset, not applicable.

- (b) Significant Permit Revision 027-14825-05023, issued on December 17, 2001

Condition D.1.4(a):

The total equivalent No. 1/No. 2 fuel oil usage at the portable asphalt plant shall not exceed 2,713,521 gallons per consecutive twelve (12) month period.

For the purposes of Paragraph (a) of this Condition, the following conversions shall be used to determine the equivalent No. 1/No. 2 fuel oil use for natural gas:

Natural gas: Cubic feet natural gas x 0.007042254 = Gallons No. 1/No. 2 fuel oil

Reason not incorporated:

The potential to emit SO₂ from natural gas usage is only 0.305 tons per year. Thus, limiting the potential to emit SO₂ from distillate oils or re-refined (waste) oil to 99.0 tons per year limits the potential to emit SO₂ from the entire source to less than 100 tons per year and no equivalency is needed for natural gas usage. In addition, the fuel use limitation is revised based on updated emission factors and to take into account the equivalency of re-refined (waste) oil and No. 4 distillate fuel oil to the No. 2 distillate fuel oil.

- (c) FESOP 055-7575-05023, issued on August 4, 1997, and Significant Permit Revision 027-14825-05023, issued on December 17, 2001

(1) Condition D.1.12:

- (A) The owner or operator shall perform daily visible emissions observations consistent with a method approved by the OAQ to determine compliance with operation conditions C.2 and D.1.3.
- (B) The owner or operator shall perform weekly visible emissions observations on the external baghouse unit, cyclone, scavenger system ductwork and associated components (e.g., hoppers, etc.), for evidence of fugitive emissions, holes, corrosion, audible leaks, and the like. This does not require the use of a certified visible emissions reader.

In the event that visible emissions are detected above the limit required by operation condition C.2 or D.1.3 are detected on the external baghouse/cyclone collection system and the associated components, the Corrective Action Contingency Plan shall be implemented. Corrective action shall be taken within 8 hours of discovery.

If the initial corrective action plan does not correct the problem, then additional corrective actions shall be devised within 8 hours of discovery and shall include a timetable for completion. The corrective actions shall be implemented immediately in accordance with those timetables.

(2) Condition D.3.23:

The owner or operator shall perform visible emissions observations as follows:

- (A) The owner or operator shall perform daily visible emissions observations consistent with a method approved by the OAQ to determine compliance with operation conditions C.2 and D.3.2.
- (B) The owner or operator shall perform weekly visible emissions observations on the external baghouse unit, cyclone, scavenger system ductwork and associated components (e.g., hoppers, etc.), for evidence of fugitive emissions, holes, corrosion, audible leaks, and the like. This does not require the use of a certified visible emissions reader.

In the event that visible emissions are detected above the limit required by operation condition C.2 or D.3.2 are detected on the external baghouse/cyclone collection system and the associated components, the Corrective Action Contingency Plan shall be implemented. Corrective action shall be taken within 8 hours of discovery. If the initial corrective action plan does not correct the problem, then additional corrective actions shall be devised within 8 hours of discovery and shall include a timetable for completion. The corrective actions shall be implemented immediately in accordance with those timetables.

(3) Condition D.3.26:

- (A) The owner or operator shall perform daily visible emissions observations consistent with a method approved by the OAQ to determine compliance with operation conditions C.2 and D.3.8.
- (B) The owner or operator shall perform weekly visible emissions observations on the external baghouse unit, cyclone, scavenger system ductwork and associated components (e.g., hoppers, etc.), for evidence of fugitive emissions, holes, corrosion, audible leaks, and the like. This does not require the use of a certified visible emissions reader.

In the event that visible emissions are detected above the limit required by operation condition C.2 or D.3.8 are detected on the external baghouse/cyclone collection system and the associated components, the Corrective Action Contingency Plan shall be implemented. Corrective action shall be taken within 8 hours of discovery. If the initial corrective action plan does not correct the problem, then additional corrective actions shall be devised within 8 hours of discovery and shall include a timetable for completion. The corrective actions shall be implemented immediately in accordance with those timetables.

Reason not incorporated:

The requirements of 326 IAC 6-4 and 326 IAC 6-5 in Section C of the FESOP satisfy the fugitive dust requirements for this source. Therefore, there are no visible emission notation requirements for the fugitive emission points. Visible emission notations of the baghouse stack, conveyors and material transfer points will be required once per shift.

- (d) FESOP 055-7575-05023, issued on August 4, 1997, and Significant Permit Revision 027-14825-05023, issued on December 17, 2001

- (1) Conditions D.1.13 and D.3.27:

The owner or operator shall operate the baghouse/cyclone collection and scavenger capture systems at all times when the aggregate dryer is in operation, monitoring the following parameters on an hourly basis:

- (A) Pressure drop (inlet/outlet differential static pressure) between the baghouse

The baghouse pressure drop shall be maintained within the following range of 3.0 to 4.0 inches of water.

If the unit is observed to be operating with a differential static pressure above the high end range or below the low end range for more than 2 hours of the production day, the troubleshooting contingency plan and corrective action shall be taken within 8 hours of discovery in accordance with Rogers Group, Incorporated Corrective Action Contingency Plan. The company shall also document the cause of the out of range reading. Failure or partial failure of control devices shall be reported to IDEM according to the procedure specified for malfunctions in 326 IAC 1-6-2, in which case the provisions of 326 IAC 1-6-5 may apply at the discretion of IDEM.

- (B) Inlet temperature to the baghouse

The inlet temperature to the baghouse shall be maintained within a range of 225 - 325 degrees Fahrenheit to prevent overheating of the bags and to prevent low temperatures from mudding up the bags.

In the event that the temperature is outside of the range, corrective action shall be taken within 8 hours. The operational parameters shall be monitored for indications of bag failure. The thermocouple at the inlet has a temperature switch which automatically shuts the burner off if the high end range is exceeded.

In the event that bag failure has occurred due to rupture, melting, etc., corrective action shall be taken. Dependent upon the severity of the excursion, corrective action shall not exceed 8 hours from the time of discovery. The baghouse shall shutdown for visual inspection within 24 hours and bags shall be replaced as needed.

- (2) Condition D.3.25:

- (A) The owner or operator shall collect pressure and scrubbing liquid flow rate readings from the scrubber controlling the aggregate drying operation every

four hours while the dryer is in operation. Unless operated under conditions for which the Preventive Maintenance Plan specifies otherwise, the pressure drop across the scrubber shall be maintained within the range of 7.0 and 10.0 inches of water and the flow rate for scrubbing liquid shall be maintained at approximately 200 gallons of water per minute or a range established during the latest stack test. The Preventive Maintenance Plan for this unit shall contain troubleshooting contingency and corrective actions for when the pressure reading or scrubbing water flow rate is outside of the above mentioned range for any one reading.

- (B) The instrument used for determining the pressure shall comply with Condition C.14 - Pressure Gauge and Other Instruments Specifications, be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

Reason not incorporated:

IDEM, OAQ, has determined that a monitoring frequency of once per shift is sufficient for this type of operation. All parameters will still be monitored, but the required frequency will be once per shift instead of hourly for the baghouse and once every four hours for the scrubber.

- (e) Significant Permit Revision 027-14825-05023, issued on December 17, 2001

- (1) Condition D.3.4:

The total equivalent re-refined oil usage at the stationary batch mix asphalt plant shall not exceed 121,088 gallons per month during any month the portable asphalt plant is co-located with the stationary asphalt plant.

For the purposes of this Condition, the following conversions shall be used to determine the equivalent re-refined oil use for the following alternative fuels:

- (A) Natural gas: $\text{CuFt Natural Gas} \times 0.007042254 = \text{Gallons re-refined oil}$
- (B) No. 1/No. 2 Fuel Oil: $\text{Gal No. 1/No. 2 Oil} \times 0.971831542 = \text{Gallons re-refined oil}$
- (C) No. 4 Fuel Oil: $\text{Gal No. 4 Fuel Oil} \times 1.028169722 = \text{Gallons re-refined oil}$

- (2) Condition D.3.10:

The total equivalent combined No. 1/No. 2 fuel oil usage at the portable plant shall not exceed 98,192 gallons per month when the portable asphalt plant is co-located with the stationary asphalt plant.

For the purposes of this Condition, the following conversions shall be used to determine the equivalent No. 1/No. 2 fuel oil use for natural gas:

Natural gas: $\text{CuFt Natural Gas} \times 0.007042254 = \text{No. 1/No. 2 fuel oil}$

Reasons not incorporated:

The two (2) conditions limiting fuel usage have been combined into a single condition to allow for maximum flexibility while the plants are co-located. An additional fuel usage limitation has been added to limit the potential to emit NO_x to less than 100 tons per year while the portable plant is co-located with the stationary plant.

- (f) Significant Permit Revision 027-14825-05023, issued on December 17, 2001

Condition D.3.5:

The amount of binder used to produce cold mix (cutback) asphalt at the stationary plant shall be limited to 691 tons per year, based on a 12 rolling total, with the grade of cold mix (cutback) asphalt being either slow or medium cure only. For the purposes of this condition, binder is defined as the sum of the oil distillate (solvent) and asphalt cement used when producing cold mix (cutback) asphalt.

Reason not incorporated:

The potential to emit VOC is limited in this proposed FESOP to 96.3 tons per year by limiting the amount of VOC solvent in the liquid binder to 131 tons per twelve (12) consecutive month period. Since the source uses only slow and medium cure cutback, the use of rapid cure is still prohibited. This limit has been changed based on updated methods of calculating emissions and further information on the VOC content of binders.

Enforcement Issue

- (a) IDEM is aware that the source did not perform the PM and PM₁₀ testing required by F 027-14791-05023, issued on August 4, 1997.
- (b) IDEM is reviewing this matter and will take appropriate action. This proposed permit contains testing requirements.

Recommendation

The staff recommends to the Commissioner that the FESOP Renewal be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An administratively complete FESOP Renewal application for the purposes of this review was received on August 14, 2001. Additional information was received on August 5 and 9, 2002.

There was no notice of completeness letter mailed to the source.

Emission Calculations

See pages 1 through 22 of 22 of Appendix A of this document for detailed emissions calculations.

Unrestricted Potential Emissions - Portable Source alone

This table reflects the unrestricted potential emissions of the source, excluding the emission limits that were contained in the previous FESOP.

Pollutant	Unrestricted Potential Emissions (tons/year)
PM	43,176
PM ₁₀	10,103
SO ₂	279
VOC	3.64
CO	42.9
NO _x	97.3

Note: For the purpose of determining Title V applicability for particulates, PM₁₀, not PM, is the regulated pollutant in consideration.

HAPs	Unrestricted Potential Emissions (tons/year)
Individual	Less than 10
TOTAL	Less than 25

(a) The potentials to emit (as defined in 326 IAC 2-1.1-1(16)) of PM₁₀ and SO₂ are equal to or greater than one hundred (100) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.

(b) Fugitive Emissions

Although this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2, there are applicable New Source Performance Standards that were in effect on August 7, 1980. Therefore, the fugitive emissions are counted toward determination of PSD and Emission Offset applicability.

Since unpaved roads are not an affected facility of the applicable NSPS (40 CFR 60.90, Subpart I), fugitive PM emissions resulting from unpaved roads are not counted toward determination of PSD and Emission Offset applicability.

Unrestricted Potential Emissions - Alternate Operating Scenario (co-location of the portable plant with the stationary plant in Washington, Indiana)

This table reflects the unrestricted potential emissions of the source, excluding the emission limits that were contained in the previous FESOP.

Pollutant	Unrestricted Potential Emissions (tons/year)
PM	60,141
PM ₁₀	12,553
SO ₂	443
VOC	greater than 250
CO	69.4
NO _x	134

Note: For the purpose of determining Title V applicability for particulates, PM₁₀, not PM, is the regulated pollutant in consideration.

HAPs	Unrestricted Potential Emissions (tons/year)
Individual	Less than 10
TOTAL	Less than 25

- (a) The potentials to emit (as defined in 326 IAC 2-1.1-1(16)) of PM₁₀, VOC, NO_x and SO₂ are equal to or greater than one hundred (100) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.

- (b) Fugitive Emissions

Although this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2, there are applicable New Source Performance Standards that were in effect on August 7, 1980. Therefore, the fugitive emissions are counted toward determination of PSD applicability.

Since unpaved roads are not an affected facility of the applicable NSPS (40 CFR 60.90, Subpart I), fugitive PM emissions resulting from unpaved roads are not counted toward determination of PSD applicability.

Potential to Emit After Issuance - Portable Source Alone

The source, issued a FESOP on August 4, 1997, has opted to remain a FESOP source, rather than apply for a Part 70 Operating Permit. The table below summarizes the potential to emit, reflecting all limits, of the emission units. Any control equipment is considered enforceable only after issuance of the Federally Enforceable State Operating Permit and only to the extent that the effect of the control equipment is made practically enforceable in the permit. The source's potential to emit is based on the emission units included in the original FESOP (FESOP 055-7575-05023 issued on August 4, 1997).

	Potential to Emit After Issuance (tons/year)						
Process/emission unit	PM	PM ₁₀	SO ₂	VOC	CO	NO _x	HAPs
Aggregate dryer and drum mixer	less than 28.7	less than 85.0	99.0 (oil, including insignificant oil heater) 0.305 (natural gas)	3.63	42.7	96.5	11.7
Conveying/handling, Screening, and Storage	71.2	7.13	-	-	-	-	-
Insignificant Activities	36.9	7.82	included in aggregate dryer limit	0.013	0.185	0.741	negligible
Total PTE After Issuance	less than 137 (less than 100 without unpaved roads)	less than 100	less than 100	3.64	42.9	97.3	Single less than 10 Total less than 25

The reasons for the limitations are detailed in the "State Rule Applicability - Entire Source" and "State Rule Applicability - Individual Facilities" sections of this document.

Potential to Emit After Issuance for the Alternate Operating Scenario (co-location of the portable plant with the stationary plant in Washington, Indiana)

The source is currently co-located with Rogers Group, Inc. of Washington, Indiana, a stationary asphalt plant. The stationary plant is currently permitted under F027-14746-03270, issued on December 17, 2001. An alternate operating scenario for this portable plant was permitted under Significant Permit Revision 027-14825-05023, issued on December 17, 2001, to allow this source to co-locate with Rogers Group, Inc. of Washington, Indiana. The source's potential to emit is based on the emission units included in the original FESOP(FESOP 055-7575-05023, issued on August 4, 1997) and the Significant Permit Revision (027-14825-05023, issued on December 17).

	Potential to Emit After Issuance (tons/year)						
Process/emission unit	PM	PM ₁₀	SO ₂	VOC	CO	NO _x	HAPs
Aggregate dryer and drum mixer at the portable plant	less than 28.7	43.8	99.0 (oil, including insignificant oil heater) 0.498 (natural gas, including insignificant oil heater)	2.89 (combustion, based on maximum after SO ₂ and NO _x fuel usage limitations, including insignificant oil heater) 96.3 (binder usage)	42.7	less than 100 (including insignificant oil heaters)	11.7
Aggregate dryer and drum mixer at the stationary plant	125	30.2			25.4		
Conveying/handling, Screening, and Storage at the portable plant	71.2	7.13	-	-	-	-	-
Conveying/handling, Screening, and Storage at the stationary plant	24.2	2.54	-	-	-	-	-
Insignificant Activities	73.7	15.6	included in aggregate dryer limit	included in aggregate dryer limit	1.23	included in aggregate dryer limit	negligible
Total PTE After Issuance	less than 323 (less than 250 without unpaved roads)	less than 100	less than 100	less than 100	69.4	less than 100	Single less than 10 Total less than 25

The reasons for the limitations are detailed in the "State Rule Applicability - Alternate Operating Scenario (co-location of the portable plant with the stationary plant in Washington, Indiana)" section of this document.

County Attainment Status

The source is currently located in Daviess County. The source can operate in all areas of the state except any county classified as serious, severe or extreme nonattainment for ozone or serious nonattainment for PM₁₀.

Pollutant	Status
PM ₁₀	Attainment
SO ₂	Attainment
NO ₂	Attainment
Ozone	Attainment
CO	Attainment
Lead	Attainment

- (a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Daviess County has been designated as attainment or unclassifiable for ozone.
- (b) Daviess County has been classified as attainment, maintenance attainment or unclassifiable for all remaining criteria pollutants. However, since this is a portable source, these emissions were reviewed pursuant to the requirements for Emission Offset, 326 IAC 2-3.

Portable Source

- (a) Location
This is a portable source and its current location is 412 Clark Road, Washington, Indiana 47501.
- (b) PSD and Emission Offset Requirements
The emissions for this portable source were reviewed under the requirements of the Prevention of Significant Deterioration (PSD), 326 IAC 2-2, 40 CFR 52.21, and Emission Offset, 326 IAC 2-3.
- (c) Fugitive Emissions
Although this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2, there are applicable New Source Performance Standards that were in effect on August 7, 1980. Therefore, the fugitive emissions are counted toward determination of PSD and Emission Offset applicability.

Since unpaved roads are not an affected facility of the applicable NSPS (40 CFR 60.90, Subpart I), fugitive PM emissions resulting from unpaved roads are not counted toward determination of PSD and Emission Offset applicability.

Federal Rule Applicability

The following rule applicabilities are still true:

- (a) The portable drum hot mix asphalt plant is subject to the New Source Performance Standard, 326 IAC 12, (40 CFR Part 60.90, Subpart I) because this hot mix asphalt plant was constructed after June 11, 1973. Pursuant to NSPS, the following apply to this facility:
 - (1) Pursuant to 40 CFR 60.93, performance tests are required as specified in Subpart I and as outlined in Part 60.8.

- (2) Pursuant to 40 CFR 60.92, on or after the date on which the performance tests are completed, the Permittee shall not discharge into the atmosphere from any affected facility any gases which:
 - (A) Contain particulate matter in excess of 90 milligrams per dry standard cubic meter (0.04 grains per dry standard cubic foot).
 - (B) Exhibit 20 percent opacity, or greater.
- (b) The one (1) No. 2 distillate fuel oil storage tank (MS4), constructed after July 23, 1984, is not subject to NSPS, 326 IAC 12, (40 CFR Part 60.110b, Subpart Kb) because it has a storage capacity of less than 40 cubic meters.
- (c) The one (1) asphalt storage tank (MS2), constructed after July 23, 1984, is subject to NSPS, 326 IAC 12, (40 CFR Part 60.110b, Subpart Kb) because it has a capacity greater than forty (40) cubic meters. However, the vapor pressure is less than 15.0 kiloPascals, and the asphalt storage tank is subject to only 40 CFR Part 60.116b, paragraphs (a) and (b), which require recordkeeping.
- (d) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14, 326 IAC 20, 40 CFR Part 61 and 40 CFR Part 63) applicable to this source.

State Rule Applicability - Entire Source

326 IAC 2-2 (Prevention of Significant Deterioration)

This source was constructed after August 7, 1977, and the potentials to emit PM, PM₁₀ and SO₂ are greater than 250 tons per year. Compliance with the limitations that make this source a minor source pursuant to 326 IAC 2-3, Emission Offset, will also make this source a minor source pursuant to 326 IAC 2-2, PSD.

326 IAC 2-3 (Emission Offset)

This source was constructed after August 7, 1977, and the potentials to emit PM, PM₁₀ and SO₂ are greater than 100 tons per year. The potential to emit PM, PM₁₀ and SO₂ are limited as follows in order to make this source a minor source pursuant to 326 IAC 2-3, Emission Offset:

- (a) The unrestricted potential to emit PM from the total of all facilities at this source, other than the paved roads, which are not counted towards the applicability of Emission Offset or PSD, and the aggregate dryer/mixer is 71.3 tons per year. The potential to emit PM from the aggregate dryer/mixer shall not exceed 6.55 pounds per hour, equivalent to less than 28.7 tons per year. This will result in PM emissions from the entire source of less than 100 tons per year. This limit is being added to the permit because the previous limit did not take into account the screening operations. According to Appendix A and the AP-42 emission factors, the potential to emit PM after control is 43.1 tons per year, which does not indicate compliance with this limit. However, according to the latest compliance stack test, conducted on November 22, 1996, the potential to emit PM after control is 1.30 pounds per hour, equivalent to 5.69 tons per year. Therefore, the aggregate dryer/mixer will comply with this limitation and the requirements of 326 IAC 2-3, Emission Offset, are not applicable. The potential to emit based on the stack test is calculated as follows:

$0.003914 \text{ gr/dscf} \times 33,269 \text{ dscfm} \times 60 \text{ m/hr} \times (1/7,000) \text{ lb/gr} \times 350 \text{ tons potential} / 301 \text{ tons actual} = 1.30 \text{ pounds per hour}$

- (b) The unrestricted potential to emit PM_{10} from the aggregate dryer and mixer is greater than 100 tons per year. The potential to emit PM_{10} is limited to less than 100 tons per year to comply with 326 IAC 2-8-4, FESOP. Compliance with that limit will also ensure that this source is a minor source of PM_{10} pursuant to 326 IAC 2-3, Emission Offset.
- (c) The unrestricted potential to emit SO_2 from the aggregate dryer and mixer is greater than 100 tons per year. The potential to emit SO_2 is limited to less than 100 tons per year to comply with 326 IAC 2-8-4, FESOP. Compliance with that limit will also ensure that this source is a minor source of SO_2 pursuant to 326 IAC 2-3, Emission Offset.
- (d) Pursuant to SPR 027-14825-05023, issued on December 17, 2001, the owner or operator shall not process emulsified or cutback asphalt at the portable plant unless proper approval has been obtained from IDEM, OAQ. Therefore, the unrestricted potential to emit VOC from the asphalt plant is less than 100 tons per year and there are no limits required under 326 IAC 2-3, Emission Offset, for VOC emissions.
- (e) The unrestricted potential to emit NO_x is less than 100 tons per year, when using any of the fuels, including using natural gas, re-refined (waste) oil or distillate fuel oil for each hour of the year, or natural gas in combination with any of the other fuels. Therefore, there are no limits required under 326 IAC 2-3, Emission Offset, for NO_x emissions.

326 IAC 2-6 (Emission Reporting)

This source is subject to 326 IAC 2-6 (Emission Reporting), because it has the potential to emit of more than ten (10) tons per year of SO_2 , NO_x , CO, and PM_{10} and it is a portable source. Pursuant to this rule, the owner/operator of the source must submit an emission statement for the source. The statement must be received in accordance with the compliance schedule specified in 326 IAC 2-6 and contain the minimum requirement as specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8).

326 IAC 2-8-4 (FESOP)

Pursuant to this rule, the amount of PM_{10} and SO_2 shall be limited to less than one hundred (100) tons per year. Therefore, the requirements of 326 IAC 2-7, do not apply.

- (a) The unrestricted potential to emit PM_{10} from the total of all facilities at this source, other than the aggregate dryer/mixer is 15.0 tons per year. The potential to emit PM_{10} from the aggregate dryer/mixer shall not exceed 19.4 pounds per hour, equivalent to less than 85.0 tons per year. This will result in PM_{10} emissions from the entire source of less than 100 tons per year. Since the potential to emit PM_{10} after control by the baghouse is 43.1 tons per year, compliance with this emission limitation is accomplished by using the baghouse (CE1) as control. Operation of the baghouse (CE1) is required at all times shall ensure compliance with this limit. Thus, the requirements of 326 IAC 2-7, Part 70, do not apply. The PM_{10} limit was removed from the permit in the Significant Permit Revision (027-14825-05023) issued on December 17, 2001. However, this limit is necessary for compliance with 326 IAC 2-8-4, FESOP.
- (b) The total use of re-refined (waste) oils by the dryer burner shall be limited to no more than 3,700,935 gallons per twelve (12) consecutive month period, with compliance determined at

the end of each month. Each gallon of No. 2 distillate fuel oil used at the dryer burner or hot oil heater shall be considered equal to using 1.33 gallons of re-refined (waste) oils and each gallon of No. 4 distillate fuel oil used shall be considered equal to using 1.40 gallons of re-refined (waste) oils. The sulfur content of the re-refined (waste) oil shall not exceed one half of a percent (0.5%) by weight and the sulfur content of the No. 2 and No. 4 distillate oils shall not exceed one half of a percent (0.5%) by weight, based on a monthly weighted average. This will limit SO₂ emissions from the use of distillate fuel oils or re-refined (waste) oil to 99.0 tons per year and the potential to emit SO₂ from the entire source to less than 100 tons per year. The potential to emit SO₂ from natural gas usage is only 0.305 tons per year. Thus, limiting the potential to emit SO₂ from distillate oils or re-refined (waste) oil to 99.0 tons per year limits the potential to emit SO₂ from the entire source to less than 100 tons per year and no equivalency is needed for natural gas usage. Thus, the requirements of 326 IAC 2-7, Part 70, do not apply. This limit is revised to include the fuel equivalencies of re-refined (waste) oil and No. 4 distillate fuel oil to the No. 2 distillate fuel oil.

- (c) Pursuant to SPR 027-14825-05023, issued on December 17, 2001, the owner or operator shall not process emulsified or cutback asphalt at this source unless proper approval has been obtained from IDEM, OAQ. Therefore, the potential to emit VOC is less than 100 tons per year and there are no 326 IAC 2-8-4 limits required for VOC.
- (d) The unrestricted potential to emit NO_x is less than 100 tons per year, when using any of the fuels, including using natural gas, re-refined (waste) oil or distillate fuel oil for each hour of the year, or natural gas in combination with any of the other fuels. Therefore, no 326 IAC 2-8-4, FESOP, limit is required for NO_x emissions.
- (e) This source shall not re-locate to any county that is serious, severe or extreme nonattainment for ozone or serious nonattainment for PM₁₀ without prior IDEM, OAQ, approval. There are currently no serious or extreme nonattainment counties in Indiana for ozone or serious nonattainment counties in Indiana for PM₁₀. Lake and Porter counties are currently severe nonattainment for ozone.

326 IAC 5-1 (Opacity Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity limitations), except as provided in 326 IAC 5-1-3 (Temporary alternative opacity limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of thirty percent (30%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

This source shall not re-locate to Lake County without prior IDEM, OAQ, approval.

326 IAC 6-4 (Fugitive Dust Emissions Limitations)

This rule requires the source not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions).

326 IAC 6-5 (Fugitive Particulate Emissions Limitations)

Pursuant to 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations), fugitive particulate matter emissions shall be controlled according to the plan submitted on December 13, 1996. The plan consists of:

- (a) Cleaning paved roads and parking lots by sweeping on an as needed basis (monthly minimum). Power brooming paved roads and parking lots while wet.
- (b) Paving unpaved roads and parking lots with asphalt. Treating with emulsified asphalt as needed. Treating with water as needed. Double chipping and sealing the road surface and maintain on an as needed basis.
- (c) Maintaining minimum size and number of stock piles of aggregate. Treating around the stockpile with emulsified asphalt on an as needed basis. Treating around the stockpile with water as needed. Treating the stockpiles with water as needed.
- (d) Applying water at the feed and the intermediate points of the conveyers as needed.
- (e) Minimizing the vehicular distance between transfer points of aggregates. Enclosing the transfer points. Applying water to the transfer points on an as-needed basis.
- (f) Tarping aggregate hauling vehicles. Maintaining vehicle bodies to prevent leakage. Spraying aggregates with water during transport. Maintaining a 10 mile per hour speed limit in the yard.
- (g) Reducing free fall distance during loading and unloading. Reducing the rate of discharge of the aggregate. Spraying the aggregate with water on an as needed basis.

State Rule Applicability - Individual Facilities

326 IAC 6-1 (Nonattainment Area Limitations)

Pursuant to 326 IAC 6-1-2(a), the PM emissions from the aggregate dryer/mixer at the portable plant shall not exceed 0.07 gram per dry standard cubic meter (0.03 grain per dry standard cubic foot).

326 IAC 6-1-11.1 (Lake County fugitive particulate matter control requirements)

Relocating this source to Lake County would make the requirements of 326 IAC 6-1-11.1 applicable. This source is not permitted to relocate to Lake County without prior IDEM, OAQ, approval.

326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes)

The potential to emit PM from this plant is limited by an 326 IAC 12, 40 CFR Part 60.90, Subpart I. Therefore, pursuant to 326 IAC 6-3-1(c)(5), the limitations of 326 IAC 6-3 are not applicable.

326 IAC 7 (Sulfur Dioxide Rules)

The potential to emit SO₂ from the dryer burner is twenty-five (25) tons per year or more. Therefore, the requirements of 326 IAC 7-1.1 are applicable.

- (a) When operating on No. 2 or No. 4 distillate oil, the sulfur dioxide emissions shall be limited

to five-tenths (0.5) pound per million British thermal units. Compliance with this limitation shall be accomplished by limiting the weight percent sulfur in the No. 2 distillate oil and the No. 4 distillate oil to no more than one half of one percent (0.5%).

- (b) When operating on re-refined (waste) oil, the sulfur dioxide emissions shall be limited to one and six tenths (1.6) pounds per million British thermal units. Compliance with this limitation shall be accomplished by limiting the weight percent sulfur in the re-refined (waste) oil to no more than two and one-tenth percent (2.1%).

326 IAC 8-5-2 (Asphalt paving rules)

Construction of this source commenced after January 1, 1980. Pursuant to 326 IAC 8-5-1(2), the requirements of 326 IAC 8-5-2 are applicable to any asphalt paving application made after January 1, 1980. Pursuant to 326 IAC 8-5-2, the Permittee shall not allow the use of asphalt emulsion containing more than seven percent (7%) oil distillate by volume of emulsion, except as used for the following purposes:

- (a) penetrating prime coating;
- (b) stockpile storage mix; and
- (c) application during the months of November, December, January, February, and March.

326 IAC 8-9 (Volatile Organic Liquid Storage Vessels)

- (b) Pursuant to 326 IAC 8-9-2(4), the requirements of 326 IAC 8-9 are not applicable to the one (1) No. 2 distillate fuel oil storage tank (MS4), constructed after July 23, 1984, because it has a storage capacity of less than 420,000 gallons and stores petroleum or condensate stored processed or treated prior to custody transfer.
- (c) Pursuant to 326 IAC 8-9-2(8), the requirements of 326 IAC 8-9 are not applicable to the one (1) asphalt storage tank (MS2), constructed after July 23, 1984, because the tank is subject to NSPS, 326 IAC 12, (40 CFR Part 60.110b, Subpart Kb).

326 IAC 10-1 (Nitrogen Oxides Control in Clark and Floyd Counties)

The potential to emit NO_x is less than one hundred (100) tons per year and there is an applicable NSPS. Therefore, the requirements of 326 IAC 10-1 are not applicable.

326 IAC 12-1 (New Source Performance Standards)

- (a) The hot mix asphalt plant is required to comply with the requirements of 40 CFR 60.90, Subpart I, Standards of Performance for Hot Mix Asphalt Facilities, as described in the "Federal Rule Applicability" section of this TSD.
- (b) The one (1) asphalt storage tank (MS2) at the portable hot mix asphalt plant is required to comply with the requirements of 40 CFR Part 60.116b, paragraphs (a) and (b), which require recordkeeping, as described in the "Federal Rule Applicability" section of this TSD.

329 IAC 13 (Used Oil Management)

The re-refined (waste) oil burned in the aggregate dryer shall comply with the used oil requirements specified in 329 IAC 13 (Used Oil Management). Pursuant to 329 IAC 13-3-2 (Used Oil Specifications), used oil burned for energy recovery that is classified as off-specification used oil fuel shall comply with the provisions of 329 IAC 13-8 (Used Oil Burners Who Burn Off-specification Used Oil For Energy Recovery), including:

- (a) Receipt of an EPA identification number as outlined in 329 IAC 13-8-3 (Notification),
- (b) Compliance with the used oil storage requirements specified in 329 IAC 13-8-5 (Used Oil Storage), and
- (c) Maintaining records pursuant to 329 IAC 13-8-6 (Tracking).

The burning of mixtures of used oil and hazardous waste that is regulated under 329 IAC 3.1 is prohibited at this source.

State Rule Applicability - Alternate Operating Scenario (co-location of the portable plant with the stationary plant in Washington, Indiana)

Facilities at the Stationary Plant include the following:

- (a) One (1) batch mixer, identified as AP2, capable of producing 120 tons of asphalt per hour, with emissions exhausting through a cyclone (CE2) and scrubber (CE1), with emissions exiting through Stack SV1.
- (b) One (1) 69.1 million British thermal unit per hour natural gas, No. 1 or No. 2 distillate fuel oil, No. 4 distillate fuel oil, or re-refined (waste) oil-fired aggregate dryer, identified as AP1, with emissions exhausted through a cyclone (CE2) and scrubber (CE1), with emissions exiting through Stack SV1.

This source also includes insignificant activities, including a 2.84 million British thermal unit per hour natural gas-fired hot oil heater and unpaved roads, as well as storage facilities.

326 IAC 2-2 (Prevention of Significant Deterioration)

The portable plant was constructed after August 7, 1977, and the two (2) plants co-located in 2001. Therefore, the requirements of 326 IAC 2-2, PSD, can be applicable. The stationary and portable plants are co-located at an attainment county, and the potentials to emit PM, PM₁₀, VOC and SO₂ are greater than 250 tons per year. The potentials to emit PM, PM₁₀ and SO₂ are limited to make the requirements of 40 CFR 52.21 and 326 IAC 2-2, PSD, not applicable.

- (a) The unrestricted potential to emit PM from the total of all facilities at the portable plant, other than the paved roads, which are not counted towards the applicability of Emission Offset or PSD, and the aggregate dryer/mixer is 71.3 tons per year. The potential to emit PM from the aggregate dryer/mixer shall not exceed 6.55 pounds per hour, equivalent to less than 28.7 tons per year. This will result in PM emissions from the entire portable plant of less than 100 tons per year. Thus, the potential to emit PM from the stationary source must be limited to less than 150 tons per year to make the requirements of 326 IAC 2-2, PSD, not applicable. The unrestricted potential to emit PM from the total of all facilities at the stationary source, other than the paved roads, which are not counted towards the applicability of Emission Offset or PSD, and the aggregate dryer/mixer is 24.2 tons per year. The PM from the aggregate

dryer/mixer shall not exceed 28.6 pounds per hour, equivalent to 125 tons per year. This will result in PM emissions from the entire stationary plant of less than 150 tons per year and the potential to emit less than 250 tons per year of PM from the entire source. According to the potential to emit after control calculations in Appendix A, the PM emissions from the aggregate dryer/mixer at the stationary source are 3.86 pounds per hour and the source will comply with this limitation. This limitation is being added to the permit because the existing limitations for 326 IAC 6-1 and 326 IAC 6-3 do not ensure that this source is a minor source pursuant to 326 IAC 2-2, PSD.

- (b) The potential to emit PM_{10} is limited to less than 100 tons per year to comply with 326 IAC 2-8-4, FESOP. Compliance with that limit will also ensure that this source is a minor source of PM_{10} pursuant to 326 IAC 2-2, PSD.
- (c) The potential to emit SO_2 is limited to less than 100 tons per year to comply with 326 IAC 2-8-4, FESOP. Compliance with that limit will also ensure that this source is a minor source of SO_2 pursuant to 326 IAC 2-2, PSD.
- (d) The potential to emit VOC is limited to less than 100 tons per year to comply with 326 IAC 2-8-4, FESOP. Compliance with that limit will also ensure that this source is a minor source of VOC pursuant to 326 IAC 2-2, PSD.
- (e) The unrestricted potential to emit NO_x is less than 250 tons per year. Therefore, no limit is required to ensure that this source is a minor source of NO_x pursuant to 326 IAC 2-2, PSD.

326 IAC 2-3 (Emission Offset)

The stationary and portable plants are co-located at an attainment county. Therefore the requirements of 326 IAC 2-3, Emission Offset, are not applicable.

326 IAC 2-8-4 (FESOP)

Pursuant to this rule, the amount of PM_{10} , SO_2 , NO_x and VOC shall be limited to less than one hundred (100) tons per year. Therefore, the requirements of 326 IAC 2-7, do not apply.

- (a) The unrestricted potential to emit PM_{10} from the total of all facilities at the portable and stationary plants, other than the aggregate dryers/mixers is 25.3 tons per year. The potential to emit PM_{10} from the aggregate dryer/mixer at the portable plant shall not exceed 10.0 pounds per hour, equivalent to 43.8 tons per year and the potential to emit PM_{10} from the aggregate dryer/mixer at the stationary plant shall not exceed 6.89 pounds per hour, equivalent to less than 30.2 tons per year. This will result in PM_{10} emissions from the entire source of less than 100 tons per year. Since the potential to emit PM_{10} from the portable source, after control by the baghouse, is 43.1 tons per year, and the potential to emit PM_{10} at the stationary source, after control by the cyclone and scrubber, is 2.47 tons per year, compliance with this emission limitation is accomplished by using the baghouse, cyclone and scrubber as controls. Operation of the baghouse is required at all times when the portable source is in operation, and operation of the cyclone and scrubber at all times when the stationary source is in operation to ensure compliance with this limit. Thus, the requirements of 326 IAC 2-7, Part 70, do not apply. These limitations are being added to the permit because they are necessary to ensure compliance with 326 IAC 2-8-4, FESOP.
- (b) The total use of re-refined (waste) oils by the two (2) dryer burners shall be limited to no more

than 3,700,935 gallons per twelve (12) consecutive month period, total, with compliance determined at the end of each month. Each gallon of No. 1 or No. 2 distillate fuel oil used at the dryer burners or hot oil heaters shall be considered equal to using 1.33 gallons of re-refined (waste) oils and each gallon of No. 4 distillate fuel oil used shall be considered equal to using 1.40 gallons of re-refined (waste) oils. The sulfur content of the re-refined (waste) oil shall not exceed one half of a percent (0.5%) by weight and the sulfur content of the No. 1, No. 2 and No. 4 distillate oils shall not exceed one half of a percent (0.5%) by weight, based on a monthly weighted average. This will limit SO₂ emissions from the use of distillate fuel oils or re-refined (waste) oil to 99.0 tons per year and the potential to emit SO₂ from the entire source to less than 100 tons per year. Thus, the requirements of 326 IAC 2-7, Part 70, do not apply. This limit combines the limits for the portable and stationary asphalt to allow for more flexibility.

- (c) The total use of natural gas by the dryer burner and hot oil heater at the stationary plant shall be limited to less than 2,000,000,000 cubic feet per twelve (12) consecutive month period, total, with compliance determined at the end of each month. Each cubic foot of natural gas used at the dryer burner at the portable plant shall be considered equal to using 1.9 cubic feet of natural gas at the stationary plant, each gallon of No. 1, No. 2 or No. 4 distillate fuel oil used at the dryer burner at the stationary plant or hot oil heater at the portable plant shall be considered equal to using 200 cubic feet of natural gas at the stationary plant, each gallon of No. 2 or No. 4 distillate fuel oils used at the dryer burner at the portable plant shall be considered equal to using 240 cubic feet of natural gas at the stationary plant, and each gallon of re-refined (waste) oil used at the dryer burners at either plant shall be considered equal to using 160 cubic feet of natural gas at the stationary plant. This will limit NO_x emissions from the use of natural gas, distillate fuel oils or re-refined (waste) oil to less than 100 tons per year. Thus, the requirements of 326 IAC 2-7, Part 70, do not apply. This limit combines the limits for the portable and stationary asphalt to allow for more flexibility.
- (d) Pursuant to SPR 027-14825-05023, issued on December 17, 2001, the owner or operator shall not process emulsified or cutback asphalt at the portable plant unless proper approval has been obtained from IDEM, OAQ. Cutback asphalt liquid binder usage at the stationary plant shall be limited to no more than 131 tons of VOC solvent per twelve (12) consecutive month period, with compliance determined at the end of each month, and any grade of cutback or emulsified asphalt except rapid cure may be used. This will limit the potential to emit VOC from cutback and emulsified asphalt usage at the stationary plant to 96.3 tons per year, based on the following formula and an adjustment factor 1.36 for medium cure:

$$\frac{\text{Tons of solvent contained in binder}}{\text{Adjustment ratio}} = \text{tons of VOC emitted}$$

This limit, in conjunction with the fuel usage limitations of (b) and (c), which effectively limit VOC emissions from combustion to 2.89 tons per year, will limit the total potential to emit VOC to less than 100 tons per year. Thus, the requirements of 326 IAC 2-7, Part 70, do not apply. Liquid binders used in the production of cold mix asphalt shall be defined as follows:

- (1) Cut back asphalt rapid cure, containing a maximum of 25.3% VOC solvent by weight in the liquid binder, with 95% by weight of the VOC solvent evaporating.
- (2) Cut back asphalt medium cure, containing a maximum of 28.6% VOC solvent by weight in the liquid binder, with 70% by weight of the VOC solvent evaporating.

- (3) Cut back asphalt slow cure, containing a maximum of 20% VOC solvent by weight in the liquid binder, with 25% by weight of the VOC solvent evaporating.
- (4) Emulsified asphalt with solvent, containing a maximum of 15% VOC solvent by weight in the liquid binder, with 46.4% by weight of the VOC solvent in the liquid blend evaporating. The percent oil distillate in emulsified asphalt with solvent liquid, as determined by ASTM, must be 7% or less of the total emulsion by volume.
- (5) Other asphalt with solvent binder, containing a maximum 25.9% VOC solvent by weight in the liquid binder, with 2.5% by weight of the VOC solvent evaporating.

326 IAC 6-1 (Nonattainment Area Limitations)

- (a) The PM emissions from the portable aggregate dryer/mixer are limited by 326 IAC 6-1-2(a), as previously mentioned.
- (b) The stationary plant is not located in any county listed in 326 IAC 6-1. Therefore, the requirements of 326 IAC 6-1 are not applicable to that source.

326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes)

- (a) The potential to emit PM from the portable plant is limited by an 326 IAC 12, 40 CFR Part 60.90, Subpart I. Therefore, pursuant to 326 IAC 6-3-1(c)(5), the limitations of 326 IAC 6-3 are not applicable.
- (b) Pursuant to 326 IAC 6-3-2(e), the particulate from the aggregate dryer/mixer at the stationary asphalt plant shall not exceed 53.1 pounds per hour when operating at a process weight rate of 120 tons per hour. The particulate from the aggregate dryer/mixer shall be limited by the following:

Interpolation and extrapolation of the data for the process weight rate in excess of sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 55.0 P^{0.11} - 40 \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

The cyclone and scrubber shall be in operation at all times the aggregate dryer/mixer is in operation, in order to comply with this limit.

According to the Significant Permit Revision (027-14825-05023), issued on December 17, 2001, the stationary source is subject to the requirements of 326 IAC 12, 40 CFR Part 60.90, Subpart I, due to the approval of No. 4 distillate fuel oil and re-refined (waste) oil as alternate fuels. Until those fuels are used and the source performs the compliance testing for Subpart I, the source is not subject to the emission limitation in Subpart I and the source must comply with the requirements of 326 IAC 6-3-2.

326 IAC 7 (Sulfur Dioxide Rules)

The potential to emit SO₂ from each of the two (2) dryer burners is twenty-five (25) tons per year or more. Therefore, the requirements of 326 IAC 7-1.1 are applicable.

- (a) When operating on No. 1, No. 2 or No. 4 distillate oil, the sulfur dioxide emissions shall be limited to five-tenths (0.5) pound per million British thermal units. Compliance with this limitation shall be accomplished by limiting the weight percent sulfur in the No. 2 distillate oil and the No. 4 distillate oil to no more than one half of one percent (0.5%).
- (b) When operating on re-refined (waste) oil, the sulfur dioxide emissions shall be limited to one and six tenths (1.6) pounds per million British thermal units. Compliance with this limitation shall be accomplished by limiting the weight percent sulfur in the re-refined (waste) oil to no more than two and one-tenth percent (2.1%).

326 IAC 8-5-2 (Asphalt paving rules)

Construction of this source commenced after January 1, 1980. Pursuant to 326 IAC 8-5-1(2), the requirements of 326 IAC 8-5-2 are applicable to any asphalt paving application made after January 1, 1980. Pursuant to 326 IAC 8-5-2, the Permittee shall not allow the use of asphalt emulsion containing more than seven percent (7%) oil distillate by volume of emulsion, except as used for the following purposes:

- (a) penetrating prime coating;
- (b) stockpile storage mix; and
- (c) application during the months of November, December, January, February, and March.

326 IAC 8-9 (Volatile Organic Liquid Storage Vessels)

The combined source is not located in Clark, Floyd, Lake or Porter Counties. Therefore, the requirements of 326 IAC 8-9 are not applicable.

326 IAC 10-1 (Nitrogen Oxides Control in Clark and Floyd Counties)

The combined source is not located in Clark, Floyd, Lake or Porter Counties. Therefore, the requirements of 326 IAC 10-1 are not applicable.

326 IAC 12-1 (New Source Performance Standards)

- (a) The portable hot mix asphalt plant is required to comply with the requirements of 40 CFR 60.90, Subpart I, Standards of Performance for Hot Mix Asphalt Facilities, as described in the "Federal Rule Applicability" section of this TSD.
- (b) The one (1) asphalt storage tank (MS2) at the portable hot mix asphalt plant is required to comply with the requirements of 40 CFR Part 60.116b, paragraphs (a) and (b), which require recordkeeping, as described in the "Federal Rule Applicability" section of this TSD.
- (c) Pursuant to F027-14746-03270, issued to the stationary source on December 17, 2001, the stationary source is also subject to the requirements of 40 CFR 60.90, Subpart I, Standards of Performance for Hot Mix Asphalt Facilities. Pursuant to NSPS, the following apply to the stationary plant:
 - (1) Pursuant to 40 CFR 60.93, performance tests are required as specified in Subpart I and as outlined in Part 60.8.
 - (2) Pursuant to 40 CFR 60.92, on or after the date on which the performance tests are completed, the Permittee shall not discharge into the atmosphere from any affected facility any gases which:
 - (A) Contain particulate matter in excess of 90 milligrams per dry standard cubic meter (0.04 grains per dry standard cubic foot).
 - (B) Exhibit 20 percent opacity, or greater.

329 IAC 13 (Used Oil Management)

The re-refined (waste) oil burned in the aggregate dryer shall comply with the used oil requirements specified in 329 IAC 13 (Used Oil Management). Pursuant to 329 IAC 13-3-2 (Used Oil Specifications), used oil burned for energy recovery that is classified as off-specification used oil fuel shall comply with the provisions of 329 IAC 13-8 (Used Oil Burners Who Burn Off-specification Used Oil For Energy Recovery), including:

- (a) Receipt of an EPA identification number as outlined in 329 IAC 13-8-3 (Notification),
- (b) Compliance with the used oil storage requirements specified in 329 IAC 13-8-5 (Used Oil Storage), and
- (c) Maintaining records pursuant to 329 IAC 13-8-6 (Tracking).

The burning of mixtures of used oil and hazardous waste that is regulated under 329 IAC 3.1 is prohibited at this source.

Testing Requirements

All testing requirements from previous approvals were incorporated into this FESOP.

A stack test for PM and PM₁₀ emissions to determine compliance with 40 CFR 60, Subpart I was performed November 22, 1996. This test showed that the asphalt plant is in compliance with Subpart I.

Pursuant to FESOP 055-7575-05023, on August 4, 1997, PM and PM₁₀ testing for the mixer and dryer/burner stack exhaust was required between 60 and 180 days after issuance of the FESOP, in order to assure compliance with 326 IAC 2-8-4 and 40 CFR 60, Subpart I, and the minor PSD and Emission Offset source limits making 326 IAC 2-2 and 326 IAC 2-3 not applicable. This test was never conducted. An referral was sent to the enforcement section. A stack test was performed for filterable particulate and opacity at this source, while it was located in Alabama, on May 24, 1999. That test also demonstrated compliance with Subpart I.

In Significant Permit Revision (027-14825-05023), issued on December 17, 2001, the testing requirement was changed to require testing between 30 and 36 months after issuance of that permit, and at least every five (5) years. However, since the last stack test performed in Indiana was over five (5) years ago and the source has not tested for PM₁₀ emissions, PM and PM₁₀ testing at the portable plant will be required within 180 days after issuance of the FESOP Renewal.

Compliance Requirements

Permits issued under 326 IAC 2-8 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-8-4. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they

will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

The compliance monitoring requirements applicable to this source are as follows:

(a) The portable asphalt plant is subject to the following compliance monitoring conditions:

- (1) Visible emission notations of the conveyors, material transfer points and aggregate dryer/mixer stack (SV1) exhaust shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal. For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.
- (2) The Permittee shall record the total static pressure drop across the baghouse used in conjunction with the aggregate dryer and drum mixer, at least once per shift when the aggregate dryer and drum mixer are in operation when venting to the atmosphere. When for any one reading, the pressure drop across the baghouse is outside the normal range of 3.0 and 4.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.
- (3) The inlet temperature to the baghouse shall be maintained within a range of 225 and 325 degrees Fahrenheit to prevent overheating of the bags and to prevent low temperatures from mudding up the bags. In the event that bag failure has occurred due to rupture, melting, or any other reason, the Permittee shall take corrective action. The Preventive Maintenance Plan for this unit shall contain troubleshooting contingency and corrective actions for when the inlet temperature reading is outside of the above mentioned range for any one reading. The baghouse shall shutdown for visual inspection within 24 hours and bags shall be replaced as needed.
- (4) An inspection shall be performed each calendar quarter of all bags controlling the aggregate dryer and drum mixer when venting to the atmosphere. A baghouse inspection shall be performed within three (3) months of redirecting vents to the atmosphere and every three (3) months thereafter. Inspections are optional when

venting to the indoors. All defective bags shall be replaced.

(5) In the event that bag failure has been observed:

- (A) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B- Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.
- (B) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

(b) While the portable asphalt plant is co-located with the stationary plant in Washington, Indiana, the stationary plant is subject to the following compliance monitoring conditions:

- (1) Visible emission notations of the conveyors, material transfer points and aggregate dryer/mixer stack (SV1) exhaust at the stationary plant shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal. For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.
- (2) The Permittee shall record the total static pressure drop across the cyclone and scrubber combination used in conjunction with the aggregate dryer and batch mixer at the stationary plant, at least once per shift when the aggregate dryer and batch mixer are in operation when venting to the atmosphere. When for any one reading, the pressure drop across the scrubber is outside the normal range of 7.0 and 10.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan -

Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

- (3) The Permittee shall record the scrubbing liquid (water) flow rate across the scrubber used in conjunction with the aggregate dryer and batch mixer at the stationary plant, at least once per shift when the aggregate dryer and batch mixer are in operation when venting to the atmosphere. When for any one reading, the flow rate is less than the normal range of 200 gallons of water per minute or a minimum range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Preparation, Implementation, Records, and Reports. A flow rate reading that is below the mentioned value is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.
- (4) An inspection shall be performed quarterly of the scrubber controlling the aggregate dryer and batch mixer at the stationary plant when venting to the atmosphere. Defective scrubber parts shall be replaced. A record shall be kept of the results of the inspection.
- (5) In the event that a scrubber failure has been observed:

Failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).
- (6) An inspection shall be performed each calendar quarter of the cyclone controlling the aggregate dryer and batch mixer at the stationary plant when venting to the atmosphere. A cyclone inspection shall be performed within three (3) months of redirecting vents to the atmosphere and every three (3) months thereafter. Inspections are optional when venting to the indoors.
- (7) In the event that cyclone failure has been observed:

Failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

These monitoring conditions are necessary because the baghouse for aggregate dryer/mixer at the portable source and the cyclone and scrubber for the aggregate dryer/mixer at the stationary plant must operate properly to ensure compliance with 326 IAC 6-1 (Nonattainment Area Limitations), 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), 326 IAC 2-8 (FESOP), 326 IAC 12 and 40 CFR 60.90, Subpart I, and to make the requirements of 326 IAC 2-2 and 40 CFR 52.21 (PSD) and 326 IAC 2-3 (Emission Offset) not applicable.

All compliance requirements from previous approvals were incorporated into this FESOP except the following (these are further described in the "Existing Approvals" section of this document):

- (a) The parametric monitoring frequency has been changed from once per hour for the portable plant and once every four hours for the stationary plant to once per shift for both plants. IDEM, OAQ, has determined that a monitoring frequency of once per shift is sufficient for this type

of operation.

- (b) The daily and weekly visible emission notations for fugitive emission points have been removed from the permit. Visible emission notations are required for the aggregate dryer/ mixer stacks, material conveyors and transfer points once per shift. The requirements of 326 IAC 6-5 and 6-5 will the fugitive dust requirements for this source.

Conclusion

The operation of this portable drum hot mix asphalt plant shall be subject to the conditions of the attached proposed FESOP No.: F 027-14791-05023.

Appendix A: Emission Calculations

Company Name: Rogers Group, Incorporated - Portable Asphalt
Plant Location: Portable (currently located at 412 Clark Road, Washington, Indiana 47501)
County: Portable (currently located in Daviess County)
FESOP: F 027-14791
Plt. ID: 027-05023
Date: August 14, 2001
Permit Reviewer: CarrieAnn Paukowits

I. Potential Emissions

A. Source emissions before controls

Hot Oil Heater on Oil (oil/<100MMBTU/uncontrolled)

The following calculations determine the amount of emissions created by #2 & #1 distillate fuel oil @ 0.5 % sulfur, based on 8760 hours of use and AP-42, Tables 1.3-1, 1.3-2, 1.3-3

Pollutant:	<u>1.200 MMBtu/hr * 8760 hrs/yr</u>	* Ef (lbs/1000 gal) = (tons/yr)
	<u>141800.0 Btu/gal * 2000 lbs/ton</u>	
P M:	2.0 lbs/1000 gal =	<u>0.074</u> tons/yr
PM-10	3.3 lbs/1000 gal =	<u>0.122</u> tons/yr
S O x:	71.0 lbs/1000 gal =	<u>2.63</u> tons/yr
N O x:	20.0 lbs/1000 gal =	<u>0.741</u> tons/yr
V O C:	0.34 lbs/1000 gal =	<u>0.013</u> tons/yr
C O:	5.0 lbs/1000 gal =	<u>0.185</u> tons/yr

Hot Oil Heater on Gas (gas/<100MMBTU/uncontrolled)

The following calculations determine the amount of emissions created by natural gas combustion, based on 8760 hours of use, AP-42 Ch. 1.4, Tables 1.4-1, 1.4-2, 1.4-3

Pollutant:	<u>0.000 MMBtu/hr * 8760 hrs/yr</u>	* Ef (lbs/MMcf) = (tons/yr)
	<u>1000 Btu/cf * 2000 lbs/ton</u>	
P M:	1.9 lbs/MMcf =	<u>0.000</u> tons/yr
P M-10:	7.6 lbs/MMcf =	<u>0.000</u> tons/yr
S O x:	0.6 lbs/MMcf =	<u>0.000</u> tons/yr
N O x:	100.0 lbs/MMcf =	<u>0.000</u> tons/yr
V O C:	5.5 lbs/MMcf =	<u>0.000</u> tons/yr
C O:	84.0 lbs/MMcf =	<u>0.000</u> tons/yr

Dryer Burner (gas/<100MMBTU/uncontrolled)

The following calculations determine the amount of emissions created by natural gas combustion, based on 8760 hours of use, AP-42 Ch. 1.4, Tables 1.4-1, 1.4-2, 1.4-3

Pollutant:	<u>0.000 MMBtu/hr * 8760 hrs/yr</u>	* Ef (lbs/MMcf) = (tons/yr)
	<u>1000 Btu/cf * 2000 lbs/ton</u>	
P M:	1.9 lbs/MMcf =	<u>0.000</u> tons/yr
P M-10:	7.6 lbs/MMcf =	<u>0.000</u> tons/yr
S O x:	0.6 lbs/MMcf =	<u>0.000</u> tons/yr
N O x:	100.0 lbs/MMcf =	<u>0.000</u> tons/yr
V O C:	5.5 lbs/MMcf =	<u>0.000</u> tons/yr
C O:	84.0 lbs/MMcf =	<u>0.000</u> tons/yr

Dryer Burner (gas/>100MMBTU/uncontrolled)

The following calculations determine the amount of emissions created by natural gas combustion, based on 8760 hours of use, AP-42 Ch. 1.4, Tables 1.4-1, 1.4-2, 1.4-3

Pollutant:	116.000 MMBtu/hr * 8760 hrs/yr	* Ef (lbs/MMcf) (tons/yr)
	1000 Btu/cf * 2000 lbs/ton	
P M:	1.9 lbs/MMcf =	0.965 tons/yr
P M-10:	7.6 lbs/MMcf =	3.86 tons/yr
S O x:	0.6 lbs/MMcf =	0.305 tons/yr
N O x:	190.0 lbs/MMcf =	96.5 tons/yr
V O C:	5.5 lbs/MMcf =	2.79 tons/yr
C O:	84.0 lbs/MMcf =	42.7 tons/yr

Post-NSPS = 190
Subpart I (June 11 1973)

Dryer Burner (gas/>100MMBTU/low nox)

The following calculations determine the amount of emissions created by natural gas combustion, based on 8760 hours of use, AP-42 Ch. 1.4, Tables 1.4-1, 1.4-2, 1.4-3 (low NOx burner = 140, flue gas recirculation = 100)

Pollutant:	0.000 MMBtu/hr * 8760 hrs/yr	* Ef (lbs/MMcf) (tons/yr)
	1000 Btu/cf * 2000 lbs/ton	
P M:	1.9 lbs/MMcf =	0.000 tons/yr
P M-10:	7.6 lbs/MMcf =	0.000 tons/yr
S O x:	0.6 lbs/MMcf =	0.000 tons/yr
N O x:	140.0 lbs/MMcf =	0.000 tons/yr
V O C:	5.5 lbs/MMcf =	0.000 tons/yr
C O:	84.0 lb/MMcf =	0.000 tons/yr

(#2 & #1 oil) Dryer Burner

The following calculations determine the amount of emissions created by #2 & #1 distillate fuel oil @ **0.5** % sulfur, based on 8760 hours of use and AP-42, Tables 1.3-1, 1.3-2, 1.3-3

Pollutant:	116.0 MMBtu/hr * 8760 hrs/yr	* Ef (lbs/1000 gal) = (tons/yr)
	139000.0 Btu/gal * 2000 lbs/ton	
P M:	2.0 lbs/1000 gal =	7.31 tons/yr
PM-10:	3.3 lbs/1000 gal =	12.1 tons/yr
S O x:	71.0 lbs/1000 gal =	260 tons/yr
N O x:	24.0 lbs/1000 gal =	87.7 tons/yr
V O C:	0.20 lbs/1000 gal =	0.731 tons/yr
C O:	5.0 lbs/1000 gal =	18.3 tons/yr

If Rating >100 mmBtu
N O x: 24.0
V O C: 0.20

(#4 oil/ <100MMBTU) Dryer Burner

The following calculations determine the amount of emissions created by #4 distillate fuel oil @ **0.5** % sulfur, based on 8760 hours of use and AP-42, Tables 1.3-1, 1.3-2, 1.3-3

Pollutant:	0.000 MMBtu/hr * 8760 hrs/yr	* Ef (lbs/1000 gal) = (tons/yr)
	138000.0 Btu/gal * 2000 lbs/ton	
P M:	2.0 lbs/1000 gal =	0.000 tons/yr
PM-10:	3.3 lbs/1000 gal =	0.000 tons/yr
S O x:	75.0 lbs/1000 gal =	0.000 tons/yr
N O x:	20.0 lbs/1000 gal =	0.000 tons/yr
V O C:	0.34 lbs/1000 gal =	0.000 tons/yr
C O:	5.0 lbs/1000 gal =	0.000 tons/yr

(#4 oil/ >100MMBTU) Dryer Burner

The following calculations determine the amount of emissions created by #4 distillate
fuel oil @ 0.500 % sulfur, based on 8760 hours of use and AP-42, Tables 1.3-1, 1.3-2, 1.3-3

Pollutant:	<u>116.0 MMBtu/hr * 8760 hrs/yr</u>	* Ef (lbs/1000 gal) = (tons/yr)
	<u>138000.0 Btu/gal * 2000 lbs/ton</u>	
P M:	2.0 lbs/1000 gal =	<u>7.36</u> tons/yr
PM-10:	3.3 lbs/1000 gal =	<u>12.1</u> tons/yr
S O x:	75.0 lbs/1000 gal =	<u>276</u> tons/yr
N O x:	24.0 lbs/1000 gal =	<u>88.4</u> tons/yr
V O C:	0.20 lbs/1000 gal =	<u>0.736</u> tons/yr
C O:	5.0 lbs/1000 gal =	<u>18.4</u> tons/yr

(waste oil/ vaporizing burner)

The following calculations determine the amount of emissions created by waste
fuel oil @ 0.500 % sulfur, based on 8760 hours of use and AP-42, Chapter 1.11

0.000

% Ash

0.000

% Lead

Pollutant:	<u>0.0 MMBtu/hr * 8760 hrs/yr</u>	* Ef (lbs/1000 gal) = (tons/yr)
	<u>0.0 Btu/gal * 2000 lbs/ton</u>	
P M:	0.0 lbs/1000 gal =	<u>0.000</u> tons/yr
P M-10:	0.0 lbs/1000 gal =	<u>0.000</u> tons/yr
S O x:	50.0 lbs/1000 gal =	<u>0.000</u> tons/yr
N O x:	11.0 lbs/1000 gal =	<u>0.000</u> tons/yr
VOC:	1.0 lbs/1000 gal =	<u>0.000</u> tons/yr
C O:	1.7 lbs/1000 gal =	<u>0.000</u> tons/yr
Pb:	0.0 lbs/1000 gal =	<u>0.000</u> tons/yr

(waste oil/atomizing burner)

The following calculations determine the amount of emissions created by waste
fuel oil @ 0.500 % sulfur, based on 8760 hours of use and AP-42 Chapter 1.11

0.600

% Ash

0.000

% Lead

Pollutant:	<u>116.000 MMBtu/hr * 8760 hrs/yr</u>	* Ef (lbs/1000 gal) = (tons/yr)
	<u>140000.000 Btu/gal * 2000 lbs/ton</u>	
P M:	39.6 lbs/1000 gal =	<u>144</u> tons/yr
P M-10:	34.2 lbs/1000 gal =	<u>124</u> tons/yr
S O x:	53.5 lbs/1000 gal =	<u>194</u> tons/yr
N O x:	16.0 lbs/1000 gal =	<u>58.1</u> tons/yr
VOC:	1.0 lbs/1000 gal =	<u>3.63</u> tons/yr
C O:	2.10 lbs/1000 gal =	<u>7.62</u> tons/yr
Pb:	0.00 lbs/1000 gal =	<u>0.000</u> tons/yr

*** * aggregate drying: drum-mix plant * ***

The following calculations determine the amount of emissions created by aggregate drying, based on 8760 hours of use and AP-42, Chapter 11.1, Table 11.1-3, rev. 12/00

P M:	28 lbs/ton x	<u>350</u>	tons/hr x	8760 hrs/yr =	<u>42924</u> tons/yr
		2000	lbs/ton		
P M-10:	6.5 lbs/ton x	<u>350</u>	tons/hr x	8760 hrs/yr =	<u>9965</u> tons/yr
		2000	lbs/ton		
Lead:	3.30000000E-06 lbs/ton x	<u>350</u>	tons/hr x	8760 hrs/yr =	<u>0.005</u> tons/yr
		2000	lbs/ton		
HAPs:	0.0076 lbs/ton x	<u>350</u>	tons/hr x	8760 hrs/yr =	<u>11.7</u> tons/yr
		2000	lbs/ton		

HAPs include benzene, ethylbenzene, formaldehyde, methyl chloroform, naphthalene, toluene, xylene; arsenic, cadmium, chromium, manganese, mercury, and nickel compounds.

*** * aggregate drying: batch-mix plant * ***

The following calculations determine the amount of emissions created by aggregate drying, based on 8760 hours of use and EPA SCC #3-05-002-05:

P M:	32 lbs/ton x	<u>0.0</u>	tons/hr x	8760 hrs/yr =	<u>0.0</u> tons/yr
		2000	lbs/ton		
P M-10:	4.5 lbs/ton x	<u>0</u>	tons/hr x	8760 hrs/yr =	<u>0.0</u> tons/yr
		2000	lbs/ton		
Lead:	3.30000000E-06 lbs/ton x	<u>0</u>	tons/hr x	8760 hrs/yr =	<u>0.000</u> tons/yr
		2000	lbs/ton		
HAPs:	0.0076 lbs/ton x	<u>0</u>	tons/hr x	8760 hrs/yr =	<u>0.000</u> tons/yr
		2000	lbs/ton		

HAPs include benzene, ethylbenzene, formaldehyde, methyl chloroform, naphthalene, toluene, xylene; arsenic, cadmium, chromium, manganese, mercury, and nickel compounds.

*** * conveying / handling * ***

The following calculations determine the amount of emissions created by material handling of aggregate, based on 8760 hours of use and AP-42, Ch 11.19.2

$$E_f = .0032^* \frac{(U/5)^{1.3}}{(M/2)^{1.4}} * k = \underline{\underline{0.015}} \text{ lbs/ton}$$

where k= 1 (particle size multiplier)
U = 12 mph mean wind speed (worst case)
M = 1.5 % moisture

$$P M : \underline{\underline{0.015}} \text{ lbs/ton x } \frac{350 \text{ tons/hr x } 8760 \text{ hrs/yr}}{2000 \text{ lbs/ton}} = \underline{\underline{22.9}} \text{ tons/yr}$$

$$P M-10: 10\% \text{ of PM} = \underline{\underline{2.29}} \text{ tons/yr}$$

$$\text{Screening PM: } \underline{\underline{350}} \text{ tons/hr x } 0.0315 \text{ lbs/ton} / 2000 \text{ lbs/ton x } 8760 \text{ hrs/yr} = \underline{\underline{48.3}} \text{ tons/yr}$$

$$P M-10: 10\% \text{ of PM} = \underline{\underline{4.83}} \text{ tons/yr}$$

AP-42 Ch.11.19.2

**** unpaved roads ****

The following calculations determine the amount of emissions created by vehicle traffic on unpaved roads, based on 8760 hours of use and AP-42, Ch 11.2.1.

A. Tri-axle Truck

<u>22.5</u> trips/hr x				
<u>0.03</u> miles/roundtrip x				
8760 hrs/yr =		<u>5913.0</u> miles per year		
For PM	For PM-10			
	$E_f = \{k \cdot [(s/12)^{0.8}] \cdot [(W/3)^b] / [(Mdry/0.2)^c] \} \cdot [(365-p)/365]$			
9.56	= 1.99 lb/mile			
10	where k = 2.6 (particle size multiplier for PM-10) (k=10 for PM-30 or TSP)			
4.8	s = 4.8 mean % silt content of unpaved roads			
0.5	b = 0.4 Constant for PM-10 (b = 0.5 for PM-30 or TSP)			
0.4	c = 0.3 Constant for PM-10 (c = 0.4 for PM-30 or TSP)			
28	W = 28 tons average vehicle weight			
0.2	Mdry = 0.2 surface material moisture content, % (default is 0.2 for dry conditions)			
125	p = 125 number of days with at least 0.254mm of precipitation (See Figure 13.2.2-1)			
	9.56 lb/mi x 5913 mi/yr =	PM	<u>28.3</u> tons/yr	
	2000 lb/ton			
	1.99 lb/mi x 5913 mi/yr =	PM-10	<u>5.89</u> tons/yr	
	2000 lb/ton			

B. Front End Loader

<u>5.0</u> trips/hr x				
<u>0.045</u> miles/roundtrip x				
8760 hrs/yr =		<u>1971.0</u> miles per year		
For PM	For PM-10			
	$E_f = \{k \cdot [(s/12)^{0.8}] \cdot [(W/3)^b] / [(Mdry/0.2)^c] \} \cdot [(365-p)/365]$			
8.65	= 1.84 lb/mile			
10	where k = 2.6 (particle size multiplier for PM-10) (k=10 for PM-30 or TSP)			
4.8	s = 4.8 mean % silt content of unpaved roads			
0.5	b = 0.4 Constant for PM-10 (b = 0.5 for PM-30 or TSP)			
0.4	c = 0.3 Constant for PM-10 (c = 0.4 for PM-30 or TSP)			
23	W = 23 tons average vehicle weight			
0.2	Mdry = 0.2 surface material moisture content, % (default is 0.2 for dry conditions)			
125	p = 125 number of days with at least 0.254mm of precipitation (See Figure 13.2.2-1)			
	8.65 lb/mi x 1971 mi/yr =	PM	<u>8.53</u> tons/yr	
	2000 lb/ton			
	1.84 lb/mi x 1971 mi/yr =	PM-10	<u>1.81</u> tons/yr	
	2000 lb/ton			

C. Semi Truck

<u>0.0</u> trips/hr x				
<u>0.0</u> miles/roundtrip x				
8760 hrs/yr =		<u>0.0</u> miles per year		
For PM	For PM-10			
11.24	Ef = {k*[(s/12)^0.8]*[(W/3)^b]/[(Mdry/0.2)^c]}*[(365-p)/365]			
10	= 2.27 lb/mile			
4.8	where k = 2.6 (particle size multiplier for PM-10) (k=10 for PM-30 or TSP)			
0.5	s = 4.8 mean % silt content of unpaved roads			
0.4	b = 0.4 Constant for PM-10 (b = 0.5 for PM-30 or TSP)			
38	c = 0.3 Constant for PM-10 (c = 0.4 for PM-30 or TSP)			
0.2	W = 38 tons average vehicle weight			
125	Mdry = 0.2 surface material moisture content, % (default is 0.2 for dry conditions)			
	p = 125 number of days with at least 0.254mm of precipitation (See Figure 13.2.2-1)			
	11.24 lb/mi x 0 mi/yr = PM <u>0.00</u> tons/yr			
	2000 lb/ton			
	2.27 lb/mi x 0 mi/yr = PM-10 <u>0.00</u> tons/yr			
	2000 lb/ton			

All Trucking Total PM: 36.8 tons/yr
 Total PM-10: 7.70 tons/yr

** storage **

The following calculations determine the amount of emissions created by wind erosion of storage stockpiles, based on 8760 hours of use and AP-42, Ch 11.2.3.

Ef = 1.7*(s/1.5)*(365-p)/235*(f/15)	
= 1.74 lbs/acre/day for sand	
= 1.16 lbs/acre/day for stone	
= 1.16 lbs/acre/day for slag	
= 1.16 lbs/acre/day for gravel	
= 1.16 lbs/acre/day for RAP	
where s = 1.5 % silt for sand	
s = 1.0 % silt of stone	
s = 1.0 % silt of slag	
s = 1.0 % silt of gravel	
s = 1.0 % silt for RAP	
p = 125 days of rain greater than or equal to 0.01 inches	
f = 15 % of wind greater than or equal to 12 mph	
Ep (storage) = Ef * sc * (20 cuft/ton) * (365 days/yr)	
(2000 lbs/ton)*(43560 sqft/acre)*(25 ft)	
= 0.012 tons/yr for sand	
= 0.000 tons/yr for stone	
= 0.000 tons/yr for slag	
= 0.000 tons/yr for gravel	
= 0.008 tons/yr for RAP	
Total PM: <u>0.019</u> tons/yr	

where sc = 2.0,000 tons storage capacity for sand
sc = 0.0,000 tons storage capacity for stone
sc = 0,000 tons storage capacity for slag
sc = 0,000 tons storage capacity for gravel
sc = 2,000 tons storage capacity for RAP

P M-10:	35% of PM =	<u>0.004</u> tons/yr for sand
	35% of PM =	<u>0.000</u> tons/yr for stone
	35% of PM =	<u>0.000</u> tons/yr for slag
	35% of PM =	<u>0.000</u> tons/yr for gravel
	35% of PM =	<u>0.003</u> tons/yr for RAP
Total PM-10:		<u>0.007</u> tons/yr

Emissions before controls (combustion plus production) are as follows:

natural gas		#2 oil		#4 oil		waste oil	
P M:	<u>43033</u> tons/yr	P M:	<u>43039</u> tons/yr	P M:	<u>43039</u> tons/yr	P M:	<u>43176</u> tons/yr
P M-10:	<u>9983</u> tons/yr	P M-10:	<u>9992</u> tons/yr	P M-10:	<u>9992</u> tons/yr	P M-10:	<u>10103</u> tons/yr
S O x:	<u>2.94</u> tons/yr	S O x:	<u>262</u> tons/yr	S O x:	<u>279</u> tons/yr	S O x:	<u>197</u> tons/yr
N O x:	<u>97.3</u> tons/yr	N O x:	<u>88.5</u> tons/yr	N O x:	<u>89.1</u> tons/yr	N O x:	<u>58.8</u> tons/yr
V O C:	<u>2.81</u> tons/yr	V O C:	<u>0.744</u> tons/yr	V O C:	<u>0.749</u> tons/yr	V O C:	<u>3.64</u> tons/yr
C O:	<u>42.9</u> tons/yr	C O:	<u>18.5</u> tons/yr	C O:	<u>18.6</u> tons/yr	C O:	<u>7.81</u> tons/yr
Lead:	<u>0.005</u> tons/yr	Lead:	<u>0.005</u> tons/yr	Lead:	<u>0.005</u> tons/yr	Lead:	<u>0.005</u> tons/yr
HAPs:	<u>11.7</u> tons/yr	HAPs:	<u>11.7</u> tons/yr	HAPs:	<u>11.7</u> tons/yr	HAPs:	<u>11.7</u> tons/yr

B. Source emissions after controls

dryer combustion: gas

P M:	0.97 tons/yr x	<u>0.00100</u> emitted after controls =	<u>0.001</u> tons/yr
P M-10:	3.86 tons/yr x	<u>0.00100</u> emitted after controls =	<u>0.004</u> tons/yr

dryer combustion: #2 oil

P M:	7.31 tons/yr x	<u>0.00100</u> emitted after controls =	<u>0.007</u> tons/yr
P M-10:	12.06 tons/yr x	<u>0.00100</u> emitted after controls =	<u>0.012</u> tons/yr

hot oil heater combustion: gas

P M:	0.000 tons/yr x	<u>1.00000</u> emitted after controls =	<u>0.000</u> tons/yr
P M-10:	0.000 tons/yr x	<u>1.00000</u> emitted after controls =	<u>0.000</u> tons/yr

hot oil heater combustion: #2 oil

P M:	0.074 tons/yr x	<u>1.00000</u> emitted after controls =	<u>0.074</u> tons/yr
P M-10:	0.122 tons/yr x	<u>1.00000</u> emitted after controls =	<u>0.122</u> tons/yr

dryer combustion: #4 oil

P M:	7.36 tons/yr x	<u>0.00100</u> emitted after controls =	<u>0.007</u> tons/yr
P M-10:	12.15 tons/yr x	<u>0.00100</u> emitted after controls =	<u>0.012</u> tons/yr

dryer combustion: waste oil

P M:	143.71 tons/yr x	<u>0.001</u> emitted after controls =	<u>0.144</u> tons/yr
P M-10:	124.12 tons/yr x	<u>0.001</u> emitted after controls =	<u>0.124</u> tons/yr

aggregate drying:

P M:	42924.00 tons/yr x	<u>0.00100</u> emitted after controls =	<u>42.9</u> tons/yr
P M-10:	9964.50 tons/yr x	<u>0.00100</u> emitted after controls =	<u>9.96</u> tons/yr

conveying/handling:

P M:	22.90 tons/yr x	<u>1.000</u>	emitted after controls =	<u>22.9</u> tons/yr
P M-10:	2.29 tons/yr x	<u>1.000</u>	emitted after controls =	<u>2.29</u> tons/yr

screening

P M:	48.29 tons/yr x	<u>1.000</u>	emitted after controls =	<u>48.3</u> tons/yr
P M-10:	4.83 tons/yr x	<u>1.000</u>	emitted after controls =	<u>4.83</u> tons/yr

unpaved roads:

P M:	36.80 tons/yr x	50.00%	emitted after controls =	<u>18.4</u> tons/yr
P M-10:	7.70 tons/yr x	50.00%	emitted after controls =	<u>3.85</u> tons/yr

storage:

P M:	0.019 tons/yr x	50.00%	emitted after controls =	<u>0.010</u> tons/yr
P M-10:	0.007 tons/yr x	50.00%	emitted after controls =	<u>0.003</u> tons/yr

Emissions after controls (combustion plus production) are as follows:

	Gas	#2 Oil	#4 Oil	Waste Oil	
P M:	<u>133</u>	<u>133</u>	<u>133</u>	<u>133</u>	tons/yr
P M-10:	<u>20.9</u>	<u>21.1</u>	<u>21.0</u>	<u>21.1</u>	tons/yr

II. Allowable Emissions

A. The following calculations determine compliance with NSPS Subpart I, which limits stack emissions from asphalt plants to 0.04 gr/dscf:

$$\begin{aligned}
 & \frac{0.04 \text{ grains}}{\text{dscf}} \times \frac{58255 \text{ acfm}}{\text{year}} \times \frac{1}{7000 \text{ grains}} \times \frac{1 \text{ ton}}{2000 \text{ lbs}} \times \frac{460}{460 + \frac{528}{250} \text{ Temp}} \times \frac{100}{100 - 1.5 \% \text{ moisture}} = 64.1 \text{ tons/yr}
 \end{aligned}$$

To meet NSPS Subpart I, the following value must be < amount calculated above

43.1 tons/yr

B. The following calculations determine compliance with 326 IAC 6-1, which limits stack emissions from asphalt plants to 0.03 gr/dscf:

$$\begin{aligned}
 & \frac{0.03 \text{ grains}}{\text{dscf}} \times \frac{58255 \text{ acfm}}{\text{year}} \times \frac{1}{7000 \text{ grains}} \times \frac{1 \text{ ton}}{2000 \text{ lbs}} \times \frac{460}{460 + \frac{528}{250} \text{ Temp}} \times \frac{100}{100 - 1.5 \% \text{ moisture}} = 48.1 \text{ tons/yr}
 \end{aligned}$$

To meet 326 IAC 6-1, the following value must be < amount calculated above

43.1 tons/yr

C. The following calculations determine the maximum sulfur content of distillate #2 fuel oil allowable by 326 IAC 7:

limit:	0.5 lbs/MMBtu		
	0.5 lbs/MMBtu x	<u>139000.0</u> Btu/gal=	<u>69.5</u> lbs/1000gal
	69.5 lbs/1000gal /	<u>142.0</u> lb/1000 gal =	<u>0.489</u>
Sulfur content must be less than or equal to and to limit SO2 emissions to 99 tons per year or less.		<u>0.5</u> % to comply with 326 IAC 7	

D. The following calculations determine the maximum sulfur content of residual waste fuel oil allowable by 326-IAC 7:

limit:	1.6 lbs/MMBtu		
	1.6 lbs/MMBtu x	<u>140000.000</u> Btu/gal=	224 lbs/1000gal
	224 lbs/1000gal /	<u>107.0</u> lbs/1000 gal = (check burner type)	<u>2.093</u>
Sulfur content must be less than or equal to and to limit SO2 emissions to 99 tons per year or less.		<u>2.1</u> % to comply with 326 IAC 7	

E. The following calculations determine the maximum sulfur content of distillate #4 fuel oil allowable by 326-IAC 7:

limit:	0.5 lbs/MMBtu		
	0.5 lbs/MMBtu x	<u>139000.000</u> Btu/gal=	69.5 lbs/1000gal
	69.5 lbs/1000gal /	<u>150.0</u> lbs/1000 gal =	<u>0.463</u>
Sulfur content must be less than or equal to and to limit SO2 emissions to 99 tons per year or less.		<u>0.5</u> % to comply with 326 IAC 7	

III. Limited Potential Emissions

FUEL USAGE LIMITATION: BASED ON NOx

The unrestricted potential to emit NOx is less than 100 tons per year. Therefore, there is no emission limitation for NOx.

FUEL USAGE LIMITATION: BASED ON SO2

FUEL USAGE LIMITATION FOR BURNER (Gas)

0.305 <u>tons SO2</u> year	*	2000 <u>lbs</u> ton	=	610 <u>lbs SO2</u> year
610 <u>lbs SO2</u> year	/	0.6 <u>lbs SO2</u> MMcf	=	1016 <u>MMcf</u> year
1016 <u>MMcf</u> year	*	<u>99.0</u> tons/yr 0.30 tons/yr	=	<u>0.0</u> <u>MMcf</u> year No FESOP Limit

FUEL USAGE LIMITATION FOR BURNER & HEATER (#2 Oil)

$$\begin{array}{rclclcl} \frac{262 \text{ tons SO}_2}{\text{year}} & * & 2000 \frac{\text{lbs}}{\text{ton}} & = & 524309 \frac{\text{lbs SO}_2}{\text{year}} \\ \\ \frac{524309 \text{ lbs SO}_2}{\text{year}} & / & 71.0 \frac{\text{lbs}}{1000 \text{ gal}} & = & 7384636 \frac{\text{gal}}{\text{year}} \\ \\ \frac{7384636 \text{ gal}}{\text{year}} & * & \frac{99.0 \text{ tons/yr}}{262 \text{ tons/yr}} & = & 2788732 \frac{\text{gal}}{\text{year}} \text{ FESOP Limit} \end{array}$$

FUEL USAGE LIMITATION FOR BURNER (#4 Oil)

$$\begin{array}{rclclcl} \frac{279 \text{ tons SO}_2}{\text{year}} & * & 2000 \frac{\text{lbs}}{\text{ton}} & = & 557524 \frac{\text{lbs SO}_2}{\text{year}} \\ \\ \frac{557524 \text{ lbs SO}_2}{\text{year}} & / & 75.0 \frac{\text{lbs}}{1000 \text{ gal}} & = & 7433657 \frac{\text{gal}}{\text{year}} \\ \\ \frac{7433657 \text{ gal}}{\text{year}} & * & \frac{99.0 \text{ tons/yr}}{279 \text{ tons/yr}} & = & 2640000 \frac{\text{gal}}{\text{year}} \text{ FESOP Limit} \end{array}$$

FUEL USAGE LIMITATION FOR BURNER (Waste Oil)

$$\begin{array}{rclclcl} \frac{197 \text{ tons SO}_2}{\text{year}} & * & 2000 \frac{\text{lbs}}{\text{ton}} & = & 393582 \frac{\text{lbs SO}_2}{\text{year}} \\ \\ \frac{393582 \text{ lbs SO}_2}{\text{year}} & / & 53.5 \frac{\text{lbs}}{1000 \text{ gal}} & = & 7356667 \frac{\text{gal}}{\text{year}} \\ \\ \frac{7356667 \text{ gal}}{\text{year}} & * & \frac{99.0 \text{ tons/yr}}{197 \text{ tons/yr}} & = & 3700935 \frac{\text{gal}}{\text{year}} \text{ FESOP Limit} \end{array}$$

Alternate Operating Scenario

I. Potential Emissions from Stationary Source

A. Source emissions before controls

Hot Oil Heater on Oil (oil/<100MMBTU/uncontrolled)

The following calculations determine the amount of emissions created by #2 & #1 distillate fuel oil @ 0.5 % sulfur, based on 8760 hours of use and AP-42, Tables 1.3-1, 1.3-2, 1.3-3

Pollutant:	<u>0.000 MMBtu/hr * 8760 hrs/yr</u>	* Ef (lbs/1000 gal) = (tons/yr)
	<u>141800.0 Btu/gal * 2000 lbs/ton</u>	
P M:	2.0 lbs/1000 gal =	<u>0.000</u> tons/yr
PM-10:	3.3 lbs/1000 gal =	<u>0.000</u> tons/yr
S O x:	71.0 lbs/1000 gal =	<u>0.000</u> tons/yr
N O x:	20.0 lbs/1000 gal =	<u>0.000</u> tons/yr
V O C:	0.34 lbs/1000 gal =	<u>0.000</u> tons/yr
C O:	5.0 lbs/1000 gal =	<u>0.000</u> tons/yr

Hot Oil Heater on Gas (gas/<100MMBTU/uncontrolled)

The following calculations determine the amount of emissions created by natural gas combustion, based on 8760 hours of use, AP-42 Ch. 1.4, Tables 1.4-1, 1.4-2, 1.4-3

Pollutant:	<u>2.84 MMBtu/hr * 8760 hrs/yr</u>	* Ef (lbs/MMcf) = (tons/yr)
	<u>1000 Btu/cf * 2000 lbs/ton</u>	
P M:	1.9 lbs/MMcf =	<u>0.024</u> tons/yr
P M-10:	7.6 lbs/MMcf =	<u>0.095</u> tons/yr
S O x:	0.6 lbs/MMcf =	<u>0.007</u> tons/yr
N O x:	100.0 lbs/MMcf =	<u>1.24</u> tons/yr
V O C:	5.5 lbs/MMcf =	<u>0.068</u> tons/yr
C O:	84.0 lbs/MMcf =	<u>1.04</u> tons/yr

Dryer Burner (gas/<100MMBTU/uncontrolled)

The following calculations determine the amount of emissions created by natural gas combustion, based on 8760 hours of use, AP-42 Ch. 1.4, Tables 1.4-1, 1.4-2, 1.4-3

Pollutant:	<u>69.1 MMBtu/hr * 8760 hrs/yr</u>	* Ef (lbs/MMcf) = (tons/yr)
	<u>1000 Btu/cf * 2000 lbs/ton</u>	
P M:	1.9 lbs/MMcf =	<u>0.575</u> tons/yr
P M-10:	7.6 lbs/MMcf =	<u>2.30</u> tons/yr
S O x:	0.6 lbs/MMcf =	<u>0.182</u> tons/yr
N O x:	100.0 lbs/MMcf =	<u>30.3</u> tons/yr
V O C:	5.5 lbs/MMcf =	<u>1.66</u> tons/yr
C O:	84.0 lbs/MMcf =	<u>25.4</u> tons/yr

Dryer Burner (gas/>100MMBTU/uncontrolled)

The following calculations determine the amount of emissions created by natural gas combustion, based on 8760 hours of use, AP-42 Ch. 1.4, Tables 1.4-1, 1.4-2, 1.4-3

Pollutant:	0.000 MMBtu/hr * 8760 hrs/yr	* Ef (lbs/MMcf) (tons/yr)
	1000 Btu/cf * 2000 lbs/ton	
P M:	1.9 lbs/MMcf =	0.0000 tons/yr
P M-10:	7.6 lbs/MMcf =	0.0000 tons/yr
S O x:	0.6 lbs/MMcf =	0.0000 tons/yr
N O x:	190.0 lbs/MMcf =	0.0000 tons/yr
V O C:	5.5 lbs/MMcf =	0.0000 tons/yr
C O:	84.0 lbs/MMcf =	0.0000 tons/yr

Post-NSPS = 190

Subpart I (June 11 1973 - Nysa Jam

Dryer Burner (gas/>100MMBTU/low nox)

The following calculations determine the amount of emissions created by natural gas combustion, based on 8760 hours of use, AP-42 Ch. 1.4, Tables 1.4-1, 1.4-2, 1.4-3 (low NOx burner = 140, flue gas recirculation = 100)

Pollutant:	0.000 MMBtu/hr * 8760 hrs/yr	* Ef (lbs/MMcf) (tons/yr)
	1000 Btu/cf * 2000 lbs/ton	
P M:	1.9 lbs/MMcf =	0.000 tons/yr
P M-10:	7.6 lbs/MMcf =	0.000 tons/yr
S O x:	0.6 lbs/MMcf =	0.000 tons/yr
N O x:	140.0 lbs/MMcf =	0.000 tons/yr
V O C:	5.5 lbs/MMcf =	0.000 tons/yr
C O:	84.0 lb/MMcf =	0.000 tons/yr

(#2 & #1 oil) Dryer Burner <100

The following calculations determine the amount of emissions created by #2 & #1 distillate fuel oil @ **0.5** % sulfur, based on 8760 hours of use and AP-42, Tables 1.3-1, 1.3-2, 1.3-3

Pollutant:	69.1 MMBtu/hr * 8760 hrs/yr	* Ef (lbs/1000 gal) = (tons/yr)
	139000.0 Btu/gal * 2000 lbs/ton	
P M:	2.0 lbs/1000 gal =	4.35 tons/yr
PM-10:	3.3 lbs/1000 gal =	7.19 tons/yr
S O x:	71.0 lbs/1000 gal =	155 tons/yr
N O x:	20.0 lbs/1000 gal =	43.5 tons/yr
V O C:	0.34 lbs/1000 gal =	0.740 tons/yr
C O:	5.0 lbs/1000 gal =	10.9 tons/yr

If Rating >100 mmBtu	
N O x:	24.0
V O C:	0.20

(#4 oil/ <100MMBTU) Dryer Burner

The following calculations determine the amount of emissions created by #4 distillate fuel oil @ **0.5** % sulfur, based on 8760 hours of use and AP-42, Tables 1.3-1, 1.3-2, 1.3-3

Pollutant:	69.1 MMBtu/hr * 8760 hrs/yr	* Ef (lbs/1000 gal) = (tons/yr)
	138000.0 Btu/gal * 2000 lbs/ton	
P M:	2.0 lbs/1000 gal =	4.39 tons/yr
PM-10:	3.3 lbs/1000 gal =	7.24 tons/yr
S O x:	75.0 lbs/1000 gal =	164 tons/yr
N O x:	20.0 lbs/1000 gal =	43.9 tons/yr
V O C:	0.34 lbs/1000 gal =	0.746 tons/yr
C O:	5.0 lbs/1000 gal =	11.0 tons/yr

(#4 oil/ >100MMBTU)

Dryer Burner

The following calculations determine the amount of emissions created by #4 distillate
fuel oil @ 0.500 % sulfur, based on 8760 hours of use and AP-42, Tables 1.3-1, 1.3-2, 1.3-3

Pollutant:	<u>0.0</u> MMBtu/hr * 8760 hrs/yr	* Ef (lbs/1000 gal) = (tons/yr)
	<u>138000.0</u> Btu/gal * 2000 lbs/ton	
P M:	2.0 lbs/1000 gal =	<u>0.000</u> tons/yr
PM-10:	3.3 lbs/1000 gal =	<u>0.000</u> tons/yr
S O x:	75.0 lbs/1000 gal =	<u>0.000</u> tons/yr
N O x:	24.0 lbs/1000 gal =	<u>0.000</u> tons/yr
V O C:	0.20 lbs/1000 gal =	<u>0.000</u> tons/yr
C O:	5.0 lbs/1000 gal =	<u>0.000</u> tons/yr

(waste oil/ vaporizing burner)

The following calculations determine the amount of emissions created by waste
fuel oil @ 0.500 % sulfur, based on 8760 hours of use and AP-42, Chapter 1.11

0.000

% Ash

0.000

% Lead

Pollutant:	<u>0.0</u> MMBtu/hr * 8760 hrs/yr	* Ef (lbs/1000 gal) = (tons/yr)
	<u>0.0</u> Btu/gal * 2000 lbs/ton	
P M:	0.0 lbs/1000 gal =	<u>0.000</u> tons/yr
P M-10:	0.0 lbs/1000 gal =	<u>0.000</u> tons/yr
S O x:	50.0 lbs/1000 gal =	<u>0.000</u> tons/yr
N O x:	11.0 lbs/1000 gal =	<u>0.000</u> tons/yr
VOC	1.0 lbs/1000 gal =	<u>0.000</u> tons/yr
C O:	1.7 lbs/1000 gal =	<u>0.000</u> tons/yr
Pb:	0.0 lbs/1000 gal =	<u>0.000</u> tons/yr

(waste oil/atomizing burner)

The following calculations determine the amount of emissions created by waste
fuel oil @ 0.500 % sulfur, based on 8760 hours of use and AP-42 Chapter 1.11

0.600

% Ash

0.000

% Lead

Pollutant:	<u>69.1</u> MMBtu/hr * 8760 hrs/yr	* Ef (lbs/1000 gal) = (tons/yr)
	<u>140000.0</u> Btu/gal * 2000 lbs/ton	
P M:	39.6 lbs/1000 gal =	<u>85.6</u> tons/yr
P M-10:	34.2 lbs/1000 gal =	<u>73.9</u> tons/yr
S O x:	53.5 lbs/1000 gal =	<u>116</u> tons/yr
N O x:	16.0 lbs/1000 gal =	<u>34.6</u> tons/yr
VOC	1.0 lbs/1000 gal =	<u>2.16</u> tons/yr
C O:	2.10 lbs/1000 gal =	<u>4.54</u> tons/yr
Pb:	0.00 lbs/1000 gal =	<u>0.000</u> tons/yr

*** * aggregate drying: drum-mix plant * ***

The following calculations determine the amount of emissions created by aggregate drying, based on 8760 hours of use and AP-42, Chapter 11.1, Table 11.1-3, rev. 12/00

P M:	28 lbs/ton x	<u>0.0</u>	tons/hr x	8760 hrs/yr =	<u>0.000</u> tons/yr
		2000	lbs/ton		
P M-10:	6.5 lbs/ton x	<u>0</u>	tons/hr x	8760 hrs/yr =	<u>0.000</u> tons/yr
		2000	lbs/ton		
Lead:	3.30000000E-06 lbs/ton x	<u>0</u>	tons/hr x	8760 hrs/yr =	<u>0.000</u> tons/yr
		2000	lbs/ton		
HAPs:	0.0076 lbs/ton x	<u>0</u>	tons/hr x	8760 hrs/yr =	<u>0.000</u> tons/yr
		2000	lbs/ton		

HAPs include benzene, ethylbenzene, formaldehyde, methyl chloroform, naphthalene, toluene, xylene; arsenic, cadmium, chromium, manganese, mercury, and nickel compounds.

*** * aggregate drying: batch-mix plant * ***

The following calculations determine the amount of emissions created by aggregate drying, based on 8760 hours of use and EPA SCC #3-05-002-05:

P M:	32 lbs/ton x	<u>120</u>	tons/hr x	8760 hrs/yr =	<u>16819</u> tons/yr
		2000	lbs/ton		
P M-10:	4.5 lbs/ton x	<u>120</u>	tons/hr x	8760 hrs/yr =	<u>2365</u> tons/yr
		2000	lbs/ton		
Lead:	3.30000000E-06 lbs/ton x	<u>120</u>	tons/hr x	8760 hrs/yr =	<u>0.002</u> tons/yr
		2000	lbs/ton		
HAPs:	0.0076 lbs/ton x	<u>120</u>	tons/hr x	8760 hrs/yr =	<u>3.99</u> tons/yr
		2000	lbs/ton		

HAPs include benzene, ethylbenzene, formaldehyde, methyl chloroform, naphthalene, toluene, xylene; arsenic, cadmium, chromium, manganese, mercury, and nickel compounds.

*** * conveying / handling * ***

The following calculations determine the amount of emissions created by material handling of aggregate, based on 8760 hours of use and AP-42, Ch 11.19.2

$$E_f = .0032^* \frac{(U/5)^{1.3}}{(M/2)^{1.4}} * k = \underline{\underline{0.014}} \text{ lbs/ton}$$

where k= 1 (particle size multiplier)
U = 12 mph mean wind speed (worst case)
M = 1.6 % moisture

$$P M : \underline{\underline{0.014}} \text{ lbs/ton x } \frac{120 \text{ tons/hr x } 8760 \text{ hrs/yr}}{2000 \text{ lbs/ton}} = \underline{\underline{7.17}} \text{ tons/yr}$$

$$P M-10: 10\% \text{ of PM} = \underline{\underline{0.717}} \text{ tons/yr}$$

$$\text{Screening PM: } \underline{\underline{120}} \text{ tons/hr x } 0.0315 \text{ lbs/ton} / 2000 \text{ lbs/ton x } 8760 \text{ hrs/yr} = \underline{\underline{16.6}} \text{ tons/yr}$$

$$P M-10: 10\% \text{ of PM} = \underline{\underline{1.66}} \text{ tons/yr}$$

AP-42 Ch.11.19.2

**** unpaved roads ****

The following calculations determine the amount of emissions created by vehicle traffic on unpaved roads, based on 8760 hours of use and AP-42, Ch 11.2.1.

A. Tri-axle Truck

<u>22.5 trips/hr x</u>				
<u>0.03 miles/roundtrip x</u>				
8760 hrs/yr =			<u>5913.0 miles per year</u>	
For PM	For PM-10			
	$E_f = \{k \cdot [(s/12)^{0.8}] \cdot [(W/3)^b] / [(M_{dry}/0.2)^c] \cdot [(365-p)/365]\}$			
9.56	=	1.99 lb/mile		
10	where k =	2.6 (particle size multiplier for PM-10) (k=10 for PM-30 or TSP)		
4.8	s =	4.8 mean % silt content of unpaved roads		
0.5	b =	0.4 Constant for PM-10 (b = 0.5 for PM-30 or TSP)		
0.4	c =	0.3 Constant for PM-10 (c = 0.4 for PM-30 or TSP)		
28	W =	28 tons average vehicle weight		
0.2	Mdry =	0.2 surface material moisture content, % (default is 0.2 for dry conditions)		
125	p =	125 number of days with at least 0.254mm of precipitation (See Figure 13.2.2-1)		
<u>9.56 lb/mi x</u>		<u>5913 mi/yr =</u>	PM	<u>28.3 tons/yr</u>
		2000 lb/ton		
<u>1.99 lb/mi x</u>		<u>5913 mi/yr =</u>	PM-10	<u>5.89 tons/yr</u>
		2000 lb/ton		

B. Front End Loader

<u>5.0 trips/hr x</u>				
<u>0.045 miles/roundtrip x</u>				
8760 hrs/yr =			<u>1971.0 miles per year</u>	
For PM	For PM-10			
	$E_f = \{k \cdot [(s/12)^{0.8}] \cdot [(W/3)^b] / [(M_{dry}/0.2)^c] \cdot [(365-p)/365]\}$			
8.65	=	1.84 lb/mile		
10	where k =	2.6 (particle size multiplier for PM-10) (k=10 for PM-30 or TSP)		
4.8	s =	4.8 mean % silt content of unpaved roads		
0.5	b =	0.4 Constant for PM-10 (b = 0.5 for PM-30 or TSP)		
0.4	c =	0.3 Constant for PM-10 (c = 0.4 for PM-30 or TSP)		
23	W =	23 tons average vehicle weight		
0.2	Mdry =	0.2 surface material moisture content, % (default is 0.2 for dry conditions)		
125	p =	125 number of days with at least 0.254mm of precipitation (See Figure 13.2.2-1)		
<u>8.65 lb/mi x</u>		<u>1971 mi/yr =</u>	PM	<u>8.53 tons/yr</u>
		2000 lb/ton		
<u>1.84 lb/mi x</u>		<u>1971 mi/yr =</u>	PM-10	<u>1.81 tons/yr</u>
		2000 lb/ton		

C. Semi Truck

<u>0.0</u> trips/hr x		<u>0.0</u> miles per year	
<u>0.0</u> miles/roundtrip x			
8760 hrs/yr =			
For PM	For PM-10		
11.24	$E_f = \{k \cdot [(s/12)^{0.8}] \cdot [(W/3)^b] / [(Mdry/0.2)^c] \} \cdot [(365-p)/365]$		
10	= 2.27 lb/mile		
4.8	where k = 2.6 (particle size multiplier for PM-10) (k=10 for PM-30 or TSP)		
0.5	s = 4.8 mean % silt content of unpaved roads		
0.4	b = 0.4 Constant for PM-10 (b = 0.5 for PM-30 or TSP)		
38	c = 0.3 Constant for PM-10 (c = 0.4 for PM-30 or TSP)		
0.2	W = 38 tons average vehicle weight		
125	Mdry = 0.2 surface material moisture content, % (default is 0.2 for dry conditions)		
	p = 125 number of days with at least 0.254mm of precipitation (See Figure 13.2.2-1)		
<u>11.24 lb/mi x</u>		<u>0 mi/yr =</u>	<u>PM 0.00 tons/yr</u>
2000 lb/ton			
<u>2.27 lb/mi x</u>		<u>0 mi/yr =</u>	<u>PM-10 0.00 tons/yr</u>
2000 lb/ton			
All Trucking	Total PM: <u>36.8</u> tons/yr		
	Total PM-10: <u>7.70</u> tons/yr		

** storage **

The following calculations determine the amount of emissions created by wind erosion of storage stockpiles, based on 8760 hours of use and AP-42, Ch 11.2.3.

$E_f = 1.7 \cdot (s/1.5) \cdot (365-p)/235 \cdot (f/15)$	
= 1.74 lbs/acre/day for sand	
= 1.16 lbs/acre/day for stone	
= 1.16 lbs/acre/day for slag	
= 1.16 lbs/acre/day for gravel	
= 1.16 lbs/acre/day for RAP	
where s = 1.5 % silt for sand	
s = 1.0 % silt of stone	
s = 1.0 % silt of slag	
s = 1.0 % silt of gravel	
s = 1.0 % silt for RAP	
p = 125 days of rain greater than or equal to 0.01 inches	
f = 15 % of wind greater than or equal to 12 mph	
$E_p (\text{storage}) = E_f \cdot sc \cdot (20 \text{ cuft/ton}) \cdot (365 \text{ days/yr})$	
$(2000 \text{ lbs/ton}) \cdot (43560 \text{ sqft/acre}) \cdot (25 \text{ ft})$	
= 0.175 tons/yr for sand	
= 0.233 tons/yr for stone	
= 0.000 tons/yr for slag	
= 0.000 tons/yr for gravel	
= 0.039 tons/yr for RAP	
Total PM: <u>0.446</u> tons/yr	

where sc = 30,000 tons storage capacity for sand
sc = 60,000 tons storage capacity for stone
sc = 0,000 tons storage capacity for slag
sc = 0,000 tons storage capacity for gravel
sc = 10,000 tons storage capacity for RAP

P M-10:	35% of PM =	<u>0.061</u> tons/yr for sand
	35% of PM =	<u>0.081</u> tons/yr for stone
	35% of PM =	<u>0.000</u> tons/yr for slag
	35% of PM =	<u>0.000</u> tons/yr for gravel
	35% of PM =	<u>0.014</u> tons/yr for RAP
Total PM-10:		<u>0.156</u> tons/yr

Emissions before controls (combustion plus production) are as follows:

natural gas		#2 oil		#4 oil		waste oil	
P M:	<u>16881</u> tons/yr	P M:	<u>16885</u> tons/yr	P M:	<u>16885</u> tons/yr	P M:	<u>16966</u> tons/yr
P M-10:	<u>2378</u> tons/yr	P M-10:	<u>2383</u> tons/yr	P M-10:	<u>2383</u> tons/yr	P M-10:	<u>2449</u> tons/yr
S O x:	<u>0.189</u> tons/yr	S O x:	<u>155</u> tons/yr	S O x:	<u>164</u> tons/yr	S O x:	<u>116</u> tons/yr
N O x:	<u>31.5</u> tons/yr	N O x:	<u>44.8</u> tons/yr	N O x:	<u>45.1</u> tons/yr	N O x:	<u>35.8</u> tons/yr
V O C:	<u>1.73</u> tons/yr	V O C:	<u>0.809</u> tons/yr	V O C:	<u>0.814</u> tons/yr	V O C:	<u>2.23</u> tons/yr
C O:	<u>26.5</u> tons/yr	C O:	<u>11.9</u> tons/yr	C O:	<u>12.0</u> tons/yr	C O:	<u>5.58</u> tons/yr
Lead:	<u>0.002</u> tons/yr	Lead:	<u>0.002</u> tons/yr	Lead:	<u>0.002</u> tons/yr	Lead:	<u>0.002</u> tons/yr
HAPs:	<u>3.99</u> tons/yr	HAPs:	<u>3.99</u> tons/yr	HAPs:	<u>3.99</u> tons/yr	HAPs:	<u>3.99</u> tons/yr

B. Stationary Source emissions after controls

dryer combustion: gas

P M:	0.58 tons/yr x	<u>0.00100</u> emitted after controls =	<u>0.001</u> tons/yr
P M-10:	2.30 tons/yr x	<u>0.00100</u> emitted after controls =	<u>0.002</u> tons/yr

dryer combustion: #2 oil

P M:	4.35 tons/yr x	<u>0.00100</u> emitted after controls =	<u>0.004</u> tons/yr
P M-10:	7.19 tons/yr x	<u>0.00100</u> emitted after controls =	<u>0.007</u> tons/yr

hot oil heater combustion: gas

P M:	0.024 tons/yr x	<u>1.00000</u> emitted after controls =	<u>0.024</u> tons/yr
P M-10:	0.095 tons/yr x	<u>1.00000</u> emitted after controls =	<u>0.095</u> tons/yr

hot oil heater combustion: #2 oil

P M:	0.000 tons/yr x	<u>1.00000</u> emitted after controls =	<u>0.000</u> tons/yr
P M-10:	0.000 tons/yr x	<u>1.00000</u> emitted after controls =	<u>0.000</u> tons/yr

dryer combustion: #4 oil

P M:	4.39 tons/yr x	<u>0.00100</u> emitted after controls =	<u>0.004</u> tons/yr
P M-10:	7.24 tons/yr x	<u>0.00100</u> emitted after controls =	<u>0.007</u> tons/yr

dryer combustion: waste oil

P M:	85.61 tons/yr x	<u>0.001</u> emitted after controls =	<u>0.086</u> tons/yr
P M-10:	73.94 tons/yr x	<u>0.001</u> emitted after controls =	<u>0.074</u> tons/yr

aggregate drying:

P M:	16819.20 tons/yr x	<u>0.00100</u>	emitted after controls =	<u>16.8</u> tons/yr
P M-10:	2365.20 tons/yr x	<u>0.00100</u>	emitted after controls =	<u>2.37</u> tons/yr

conveying/handling:

P M:	7.17 tons/yr x	<u>1.000</u>	emitted after controls =	<u>7.17</u> tons/yr
P M-10:	0.72 tons/yr x	<u>1.000</u>	emitted after controls =	<u>0.717</u> tons/yr

screening

P M:	16.56 tons/yr x	<u>1.000</u>	emitted after controls =	<u>16.6</u> tons/yr
P M-10:	1.66 tons/yr x	<u>1.000</u>	emitted after controls =	<u>1.66</u> tons/yr

unpaved roads:

P M:	36.80 tons/yr x	50.00%	emitted after controls =	<u>18.4</u> tons/yr
P M-10:	7.70 tons/yr x	50.00%	emitted after controls =	<u>3.85</u> tons/yr

storage:

P M:	0.446 tons/yr x	50.00%	emitted after controls =	<u>0.223</u> tons/yr
P M-10:	0.156 tons/yr x	50.00%	emitted after controls =	<u>0.078</u> tons/yr

Emissions after controls (combustion plus production) are as follows:

	Gas	#2 Oil	#4 Oil	Waste Oil	
P M:	59.2	59.2	59.2	59.3	tons/yr
P M-10:	8.76	8.68	8.68	8.74	tons/yr

II. Stationary Source Allowable Emissions

A. The following calculations determine the maximum sulfur content of distillate #2 fuel oil allowable by 326 IAC 7:

limit:	0.5 lbs/MMBtu		
	0.5 lbs/MMBtu x	<u>139000.0</u> Btu/gal=	<u>69.5</u> lbs/1000gal
	69.5 lbs/1000gal /	<u>142.0</u> lb/1000 gal =	<u>0.489</u>
		<u>0.5</u> % to comply with 326 IAC 7	

Sulfur content must be less than or equal to
and to limit SO2 emissions to 99 tons per year or less.

B. The following calculations determine the maximum sulfur content of residual waste
fuel oil allowable by 326-IAC 7:

limit:	1.6 lbs/MMBtu		
	1.6 lbs/MMBtu x	<u>140000.000</u> Btu/gal=	224 lbs/1000gal
	224 lbs/1000gal /	<u>107.0</u> lbs/1000 gal =	<u>2.093</u>
		(check burner type)	
		<u>2.1</u> % to comply with 326 IAC 7	

Sulfur content must be less than or equal to
and to limit SO2 emissions to 99 tons per year or less.

C. The following calculations determine the maximum sulfur content of distillate #4
fuel oil allowable by 326-IAC 7:

limit:	0.5 lbs/MMBtu		
	0.5 lbs/MMBtu x	<u>139000.000</u> Btu/gal=	69.5 lbs/1000gal
	69.5 lbs/1000gal /	<u>150.0</u> lbs/1000 gal =	<u>0.463</u>
		<u>0.5</u> % to comply with 326 IAC 7	

Sulfur content must be less than or equal to
and to limit SO2 emissions to 99 tons per year or less.

IV. Total Source Potential Emissions Under Alternate Operating Scenario

Portable plant:

natural gas		#2 oil		#4 oil		waste oil	
P M:	<u>43033</u> tons/yr	P M:	<u>43039</u> tons/yr	P M:	<u>43040</u> tons/yr	P M:	<u>43176</u> tons/yr
P M-10:	<u>9983</u> tons/yr	P M-10:	<u>9992</u> tons/yr	P M-10:	<u>9992</u> tons/yr	P M-10:	<u>10103</u> tons/yr
S O x:	<u>2.94</u> tons/yr	S O x:	<u>262</u> tons/yr	S O x:	<u>279</u> tons/yr	S O x:	<u>197</u> tons/yr
N O x:	<u>97.3</u> tons/yr	N O x:	<u>88.5</u> tons/yr	N O x:	<u>89.1</u> tons/yr	N O x:	<u>58.8</u> tons/yr
V O C:	<u>2.81</u> tons/yr	V O C:	<u>0.744</u> tons/yr	V O C:	<u>0.749</u> tons/yr	V O C:	<u>3.64</u> tons/yr
C O:	<u>42.9</u> tons/yr	C O:	<u>18.5</u> tons/yr	C O:	<u>18.59</u> tons/yr	C O:	<u>7.81</u> tons/yr
Lead:	<u>0.005</u> tons/yr	Lead:	<u>0.005</u> tons/yr	Lead:	<u>0.005</u> tons/yr	Lead:	<u>0.005</u> tons/yr
HAPs:	<u>11.7</u> tons/yr	HAPs:	<u>11.7</u> tons/yr	HAPs:	<u>11.7</u> tons/yr	HAPs:	<u>11.7</u> tons/yr

Stationary plant:

natural gas		#2 oil		#4 oil		waste oil	
P M:	<u>16881</u> tons/yr	P M:	<u>16885</u> tons/yr	P M:	<u>16885</u> tons/yr	P M:	<u>16966</u> tons/yr
P M-10:	<u>2378</u> tons/yr	P M-10:	<u>2383</u> tons/yr	P M-10:	<u>2383</u> tons/yr	P M-10:	<u>2449</u> tons/yr
S O x:	<u>0.189</u> tons/yr	S O x:	<u>155</u> tons/yr	S O x:	<u>164</u> tons/yr	S O x:	<u>116</u> tons/yr
N O x:	<u>31.5</u> tons/yr	N O x:	<u>44.8</u> tons/yr	N O x:	<u>45.1</u> tons/yr	N O x:	<u>35.8</u> tons/yr
V O C:	<u>1.73</u> tons/yr	V O C:	<u>0.809</u> tons/yr	V O C:	<u>0.814</u> tons/yr	V O C:	<u>2.23</u> tons/yr
C O:	<u>26.5</u> tons/yr	C O:	<u>11.9</u> tons/yr	C O:	<u>12.0</u> tons/yr	C O:	<u>5.58</u> tons/yr
Lead:	<u>0.002</u> tons/yr	Lead:	<u>0.002</u> tons/yr	Lead:	<u>0.002</u> tons/yr	Lead:	<u>0.002</u> tons/yr
HAPs:	<u>3.99</u> tons/yr	HAPs:	<u>3.99</u> tons/yr	HAPs:	<u>3.99</u> tons/yr	HAPs:	<u>3.99</u> tons/yr

Total combined source:

natural gas		#2 oil		#4 oil		waste oil	
P M:	<u>59914</u> tons/yr	P M:	<u>59924</u> tons/yr	P M:	<u>59924</u> tons/yr	P M:	<u>60142</u> tons/yr
P M-10:	<u>12361</u> tons/yr	P M-10:	<u>12374</u> tons/yr	P M-10:	<u>12375</u> tons/yr	P M-10:	<u>12553</u> tons/yr
S O x:	<u>3.13</u> tons/yr	S O x:	<u>417</u> tons/yr	S O x:	<u>443</u> tons/yr	S O x:	<u>312</u> tons/yr
N O x:	<u>129</u> tons/yr	N O x:	<u>133</u> tons/yr	N O x:	<u>134</u> tons/yr	N O x:	<u>94.6</u> tons/yr
V O C:	<u>4.54</u> tons/yr	V O C:	<u>1.55</u> tons/yr	V O C:	<u>1.56</u> tons/yr	V O C:	<u>5.87</u> tons/yr
C O:	<u>69.4</u> tons/yr	C O:	<u>30.4</u> tons/yr	C O:	<u>30.6</u> tons/yr	C O:	<u>13.4</u> tons/yr
Lead:	<u>0.007</u> tons/yr	Lead:	<u>0.007</u> tons/yr	Lead:	<u>0.007</u> tons/yr	Lead:	<u>0.007</u> tons/yr
HAPs:	<u>15.7</u> tons/yr	HAPs:	<u>15.7</u> tons/yr	HAPs:	<u>15.7</u> tons/yr	HAPs:	<u>15.7</u> tons/yr

III. Limited Potential Emissions for Alternate Operating Senario

FUEL USAGE LIMITATION: BASED ON NOx

FUEL USAGE LIMITATION FOR BURNER & HEATER (Gas)

$$\begin{array}{rclclcl}
 \frac{128 \text{ tons NOx}}{\text{year}} & * & \frac{2000 \text{ lbs}}{\text{ton}} & = & \frac{256090 \text{ lbs NOx}}{\text{year}} \\
 \\
 \frac{256090 \text{ lbs NOx}}{\text{year}} & / & \frac{100.0 \text{ lbs NOx}}{\text{MMcf}} & = & \frac{2561 \text{ MMcf}}{\text{year}} \\
 \\
 \frac{2561 \text{ MMcf}}{\text{year}} & * & \frac{100.0 \text{ tons/yr}}{128 \text{ tons/yr}} & = & \frac{2000 \text{ MMcf}}{\text{year}} \text{ FESOP Limit}
 \end{array}$$

FUEL USAGE LIMITATION FOR BURNER & HEATER (#2 Oil)

$$\begin{array}{rclclcl}
 \frac{132 \text{ tons NOx}}{\text{year}} & * & \frac{2000 \text{ lbs}}{\text{ton}} & = & \frac{264031 \text{ lbs NOx}}{\text{year}} \\
 \\
 \frac{264031 \text{ lbs NOx}}{\text{year}} & / & \frac{20 \text{ lbs}}{1000 \text{ gal}} & = & \frac{13201528 \text{ gal}}{\text{year}} \\
 \\
 \frac{13201528 \text{ gal}}{\text{year}} & * & \frac{100.0 \text{ tons/yr}}{132 \text{ tons/yr}} & = & \frac{10000000 \text{ gal}}{\text{year}} \text{ FESOP Limit}
 \end{array}$$

FUEL USAGE LIMITATION FOR BURNER (#4 Oil)

$$\begin{array}{rclclcl}
 \frac{132 \text{ tons NOx}}{\text{year}} & * & \frac{2000 \text{ lbs}}{\text{ton}} & = & \frac{264450 \text{ lbs NOx}}{\text{year}} \\
 \\
 \frac{264450 \text{ lbs NOx}}{\text{year}} & / & \frac{20.0 \text{ lbs}}{1000 \text{ gal}} & = & \frac{13222522 \text{ gal}}{\text{year}} \\
 \\
 \frac{13222522 \text{ gal}}{\text{year}} & * & \frac{100.0 \text{ tons/yr}}{132 \text{ tons/yr}} & = & \frac{10000000 \text{ gal}}{\text{year}} \text{ FESOP Limit}
 \end{array}$$

FUEL USAGE LIMITATION FOR BURNER (Waste Oil)

$$\begin{array}{rclclcl}
 \frac{88.3 \text{ tons NOx}}{\text{year}} & * & \frac{2000 \text{ lbs}}{\text{ton}} & = & \frac{176664 \text{ lbs NOx}}{\text{year}} \\
 \\
 \frac{176664 \text{ lbs NOx}}{\text{year}} & / & \frac{16.0 \text{ lbs}}{1000 \text{ gal}} & = & \frac{11041511 \text{ gal}}{\text{year}} \\
 \\
 \frac{11041511 \text{ gal}}{\text{year}} & * & \frac{100.0 \text{ tons/yr}}{88.33 \text{ tons/yr}} & = & \frac{0.0 \text{ gal}}{\text{year}} \text{ No FESOP Limit}
 \end{array}$$

FUEL USAGE LIMITATION: BASED ON SO2

FUEL USAGE LIMITATION FOR BURNER (Gas)

$$\begin{array}{rclclcl}
 0.494 \text{ tons SO}_2 & * & 2000 \text{ lbs} & = & 988 \text{ lbs SO}_2 \\
 \text{year} & & \text{ton} & & \text{year} \\
 \\
 988 \text{ lbs SO}_2 & / & 0.6 \text{ lbs SO}_2 & = & 1646 \text{ MMcf} \\
 \text{year} & & \text{MMcf} & & \text{year} \\
 \\
 1646 \text{ MMcf} & * & 99.0 \text{ tons/yr} & = & 0.0 \text{ MMcf} & \text{No FESOP Limit} \\
 \text{year} & & 0.494 \text{ tons/yr} & & \text{year}
 \end{array}$$

FUEL USAGE LIMITATION FOR BURNER & HEATER (#2 Oil)

$$\begin{array}{rclclcl}
 417 \text{ tons SO}_2 & * & 2000 \text{ lbs} & = & 833499 \text{ lbs SO}_2 \\
 \text{year} & & \text{ton} & & \text{year} \\
 \\
 833499 \text{ lbs SO}_2 & / & 71.0 \text{ lbs} & = & 11739428 \text{ gal} \\
 \text{year} & & 1000 \text{ gal} & & \text{year} \\
 \\
 11739428 \text{ gal} & * & 99.0 \text{ tons/yr} & = & 2788732 \text{ gal} & \text{FESOP Limit} \\
 \text{year} & & 417 \text{ tons/yr} & & \text{year}
 \end{array}$$

FUEL USAGE LIMITATION FOR BURNER (#4 Oil)

$$\begin{array}{rclclcl}
 441 \text{ tons SO}_2 & * & 2000 \text{ lbs} & = & 881237 \text{ lbs SO}_2 \\
 \text{year} & & \text{ton} & & \text{year} \\
 \\
 881237 \text{ lbs SO}_2 & / & 75.0 \text{ lbs} & = & 11749826 \text{ gal} \\
 \text{year} & & 1000 \text{ gal} & & \text{year} \\
 \\
 11749826 \text{ gal} & * & 99.0 \text{ tons/yr} & = & 2640000 \text{ gal} & \text{FESOP Limit} \\
 \text{year} & & 441 \text{ tons/yr} & & \text{year}
 \end{array}$$

FUEL USAGE LIMITATION FOR BURNER (Waste Oil)

$$\begin{array}{rclclcl}
 310 \text{ tons SO}_2 & * & 2000 \text{ lbs} & = & 619635 \text{ lbs SO}_2 \\
 \text{year} & & \text{ton} & & \text{year} \\
 \\
 619635 \text{ lbs SO}_2 & / & 53.5 \text{ lbs} & = & 11581971 \text{ gal} \\
 \text{year} & & 1000 \text{ gal} & & \text{year} \\
 \\
 11581971 \text{ gal} & * & 99.0 \text{ tons/yr} & = & 3700935 \text{ gal} & \text{FESOP Limit} \\
 \text{year} & & 310 \text{ tons/yr} & & \text{year}
 \end{array}$$